

**FOCUSED SITE INVESTIGATION &
REMEDIAL ACTION COMPLETION REPORT**

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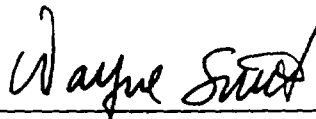
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1.0 INTRODUCTION

1.1 Site Investigation Objectives

Pioneer Environmental, Inc. (Pioneer) was contracted by MC Holdings, Inc. (Remediation Applicant / client) to conduct a "focused" site investigation and provide environmental consulting services for the subject site located at 2659 Wisconsin Avenue in Downers Grove, Illinois (Figure 1). The purpose of the focused site investigation was to determine the nature and extent of contamination related to accidental releases of waste cleaning solvent that was previously identified during an initial assessment, and then use the regulatory options provided in 35 IAC Part 740-Site Remediation Program (SRP), and Part 742-Tiered Approach to Corrective Action Objectives (TACO), to obtain a focused "No Further Remediation" Letter (NFR Letter) for the subject site.

The following report is strictly related to the subsurface investigation activities conducted by Pioneer and is intended to serve as a *Focused Site Investigation & Remedial Action Completion Report* pursuant to Sections 740.435, 740.445 and 740.455. The contents of this report include a detailed discussion of the site characterization work and the TACO procedures utilized to establish site-specific remediation objectives and determine the degree of remedial action necessary to obtain a NFR Letter in accordance with Part 740, Subpart F and Section 58.10 of the Illinois Environmental Protection Act.

1.2 Background Information

The subject property, encompassing approximately 3.9 acres of land, consists of two parcels of land owned by MC Holdings, Inc. The Remediation Site consists of an approximate 1,200 square foot area located near the east-central portion of the subject property (Figure 2). A tall, one-story structure and an adjacent asphalt parking lot comprise the subject property which is located within the Ellsworth Industrial Park. The subject property is currently vacant and the property owner informed Pioneer that the building was formerly used for the manufacturing of small electronic components (See Section 2.1). Legal descriptions for the subject property and the Remediation Site are included in Appendix A.

The client is hereby submitting the required paperwork (Appendix A) to notify the Illinois Environmental Protection Agency (IEPA) of their election to proceed under the Site Remediation Program (SRP). This is being done for the express purpose of securing a NFR Letter from the State.

1.3 Recognized Environmental Conditions

As previously discussed, the subject property was used for manufacturing small electronic components. According to the property owner, historical site operations involved the storage of miscellaneous liquid wastes in a small, dedicated room along the subject building's eastern wall. This waste primarily included cleaning solvent and soldering by-products (i.e. flux). A floor drain from the waste storage room discharged to the ground surface immediately outside the building's eastern wall. Pioneer was informed that an initial assessment was previously performed at the site and identified certain volatile organic compounds (VOCs) in soil samples collected from the area around this drain pipe. Therefore, the presence of VOC-impacted soils was identified as a recognized environmental condition (REC) and provided the focus for the site investigation activities conducted at the subject site by Pioneer.

1.4 Contaminants of Concern

Based on the REC, the information from the previous assessment, and the nature of the suspected source at the subject site, Pioneer established volatile organic compounds (VOCs) as the appropriate contaminants of concern (COCs) at the subject site. The VOC analysis includes the full-scan of organic compounds typically found in waste cleaning solvents, including tetrachloroethylene (PCE), trichloroethylene (TCE) and the various degradation compounds of PCE and TCE.

2.0 SITE CHARACTERIZATION

2.1 Site Description

The subject site consists of two parcels of land owned by MC Holdings, Inc. The subject site is rectangular in shape and encompasses approximately 3.9 acres of land located near the southwest corner of the intersection of Wisconsin Street and Katrine Avenue in the Village of Downers Grove, Illinois. The subject site is occupied by an approximate 43,200 square foot one-story building located within the Ellsworth Industrial Park. The site is bordered to the north and east by Wisconsin Street and Katrine Avenue, respectively, beyond which are industrial/commercial buildings. An asphalt parking lot lies to the west of the subject building, beyond which is industrial/commercial development. South of the subject building is an asphalt parking lot beyond which is densely vegetated vacant land.

The subject building consists primarily of an open warehouse area, where former soldering workstations were utilized to manufacture small electrical and mechanical assemblies (i.e. circuit boards). As assemblies were completed, they were cleaned with solvent and the solvent was then stored in a 55-gallon drum in the aforementioned waste storage room located along the eastern side of the subject building. A floor drain routed any small spills of the wastes to a discharge point immediately outside the subject building and directly east of the waste storage room (Figure 3). Evidence of past spills (i.e. staining) was noted on the floor in the waste storage room.

The subject site is located in a manufacturing district (M1) within the Village of Downers Grove. The following list summarizes the adjacent properties noted during the recent investigation.

North: The site is bordered to the north by Wisconsin Street beyond which is Novartis Seeds, Inc. and Amkus Rescue Systems.

East: The site is bordered to the east by Katrine Avenue, beyond which is Lovejoy.

West: The site is bordered to the west by a public storage facility.

South: The subject property is bordered to the south by vacant land that is known as Elmore Avenue (dedicated right-of-way), beyond which is densely vegetated vacant land, reportedly located in an unincorporated portion of Downers Grove.

2.2 Sampling Plan

Based on the reported presence of solvent contamination beneath the discharge pipe outside the eastern edge of the building, Pioneer developed a sampling plan to adequately characterize the site conditions associated with the REC. The objectives of the assessment activities were to confirm and supplement previous assessment activities which indicated the site's soils had been impacted by VOCs and then to delineate the horizontal and vertical extent of the potential VOC contamination based on Pioneer's assessment results.

As mentioned, Pioneer was informed by the owner that VOC-impacted soils were identified by a previous assessment conducted in the area outside the east wall of the subject building from a floor drain discharge related to spills from former waste transfer operations previously conducted on-site. Pioneer noted evidence of past spills on the floor of the former waste storage room (i.e. staining). The owner stated that an excavation (3' x 3' x 4' deep) was dug manually beneath the discharge pipe. Soils from the excavation were stockpiled inside 55-gallon drums outside the subject building (Figure 3) and are intended for proper disposal according to the applicable regulations. Therefore, based on the information provided, Pioneer's assessment targeted the area beneath the waste storage room and beneath the discharge pipe outside the eastern portion of the subject building as the potential source area.

As a result, Pioneer advanced 15 soil borings throughout the site. Soil samples were collected and analyzed for VOCs according to USEPA Method 5035/8260B. For purposes of a TACO evaluation, one soil sample was also analyzed for pH and fraction of organic carbon (f_{oc}), according to respective USEPA Methods 9045 and 9060.

2.3 Soil Boring Advancement/Sampling

On August 28 and 29, 2000, Pioneer mobilized subsurface drilling equipment and OSHA-certified personnel to the subject site. A total of 15 soil borings were advanced at strategic locations inside the subject building and throughout the eastern portion of the subject property (Figure 3). Soil borings outside the subject building were advanced through a surface finish of either concrete or vegetated topsoil while soil borings advanced inside the subject building were advanced through concrete and an approximate 6-12 inch layer of associated gravel base materials. Internal soil borings were advanced using a manually-operated jackhammer-driven sinker drill. Exterior soil borings were advanced using a truck-mounted hydraulically-driven sinker drill. Soil samples were collected using a stainless steel barrel sampler with dedicated PVC liner sleeves. A photographic log of these activities is included in Appendix B.

The soil samples obtained from each interval were logged according to their predominant geological characteristics and then divided into two representative portions by a Pioneer Project Engineer. A measured portion of each sample (13 grams) was transferred from the sampling device(s) into pre-labeled laboratory provided glass containers with appropriate preservative (in accordance with SW-846 Method 5035 for VOCs), designated for possible analysis, and stored in a cooler on ice to preserve the integrity of the sample. The remaining portion of each sample was sealed in a pre-labeled plastic bag and set aside to be field screened.

After a sufficient amount of time had elapsed to allow the soil vapors to equilibrate with the air in the sample bags, the sealed soil vapors were field screened using either a MicroFID™ IS-3000 hand-held flame ionization detector (FID). This device is sensitive to a variety of VOCs, including those commonly associated with waste solvents and their degradation compounds. The instrument provides a quantitative indication of the relative concentrations of these compounds in the soil sample by measuring the amount of VOCs trapped in the headspace of the bags.

Pioneer selected soil samples from various boring locations for analytical testing. The samples were selected based on the scope of work, FID readings, and judgment of the

Project Engineer. The selected samples were then shipped overnight to an independent laboratory under standard chain-of-custody procedures, and submitted for analysis of the appropriate targeted compounds (VOCs). Pioneer's complete protocol for subsurface soil sampling and soil boring logs are provided in Appendix C.

2.4 Field Observations

No visual/olfactory indications of potential contamination were noted in any of the soil borings advanced on-site; however, elevated FID readings were noted in three of the 15 soil borings advanced at the subject site. This field evidence of contamination was primarily observed in samples collected beneath the former waste storage room and near the floor drain discharge pipe outside the eastern portion of the subject building (i.e. source area) and was observed from near surface grade to depths up to 12 feet BSG.

2.5 Site Geology

Soils beneath asphalt and concrete surface materials consisted primarily of brown silty clay and clayey silt from near surface grade to depths ranging from approximately 6 to 9 feet below surface grade (BSG). In general, the upper silty clay unit contained varying percentages of gravel, sand and silt, retained a loose, firm to stiff consistency, and exhibited brown to dark brown color variations.

Beneath this brown upper silty clay unit, a gray silty clay unit was encountered in all borings at depths ranging from 6 to 12 feet BSG with the exception of B-9, which was terminated at 9 feet BSG. The gray silty clay unit contained trace percentages of fine sand and its consistency ranged from soft to stiff. Based on observations from B-6, which began approximately 4 feet below natural surface grade due to the recessed loading dock, the gray silty clay persisted to at least 16 feet BSG. There was no obvious evidence of groundwater detected during any of the subsurface investigation activities performed by Pioneer.

According to the Illinois State Geological Survey (ISGS) map dated 1984 and titled *Stack-Unit Mapping of Geological Materials in Illinois to a Depth of 15 Meters*, by Kempton, John P. et al., and the ISGS map dated 1970 and titled *Surficial Geology of the Chicago Region*, by Willman and Lineback, the subject site is situated on the Wadsworth Member of the Wedron Formation, which is described as mostly gray clayey and silty clayey till, with low pebble, cobble and boulder content and local silt lenses present from approximately six to 15 feet BSG. The Wedron Formation is described as silty and clayey tills with interspersed beds of alluvial sand and gravel deposits.

Pioneer also reviewed Plate 1 of the ISGS Circular dated 1984 and titled *Potential for Contamination of Shallow Aquifers in Illinois*, by Berg, Richard C. et al. Plate 1 indicates the subject site is located on the border of areas designated as "C2" and "E". A "C2" classification is described as sand and gravel within 20-50 feet of surface underlain by impermeable till. An "E" classification is described as uniform, relatively impermeable silty or clayey till at least 50 feet thick. Based on the actual subsurface sediments encountered at the subject site, the site geology appears more consistent with an "E" classification.

Based on the Berg Circular and the predominant soil types encountered at the subject site, hydraulic conductivities were estimated to range from 10^{-9} to 10^{-7} cm/s, which indicate the site's soils have a low permeability. A complete listing of the geological conditions encountered during drilling are provided on the soil boring logs in Appendix C. Copies of the ISGS maps are included in Appendix D.

3.0 TIER 1 EVALUATION

3.1 Introduction

Based on the nature of the REC, each of the soil samples analyzed during the site investigation was tested for VOCs. In order to further characterize the site and for purposes of a potential Tier 2 evaluation, one soil sample was analyzed for pH and one soil sample was also analyzed for its fraction of organic carbon (f_{oc}). All analytical tests were performed by an independent laboratory in accordance with accepted State and Federal test methods.

Based on the site's historical and intended future industrial use, soil sample analytical results contained herein are compared to the most stringent soil remediation objectives (SROs) for industrial/commercial property, also referred to as Tier 1 SROs, found in 35 IAC 742, Tiered Approach to Corrective Action Objectives (TACO). The industrial/commercial Tier 1 SROs represent baseline contaminant concentrations that are acceptable to the IEPA. These Tier 1 SROs are based on a risk assessment that incorporates a conservative exposure scenario and yields values relative to three primary exposure pathways; namely, ingestion, inhalation, and the groundwater ingestion exposure routes (migration to groundwater), and for two target populations, industrial/commercial workers and construction workers.

Although these Tier 1 SROs may not represent final remediation objectives for the site, the analytical results of the soil and groundwater samples are herein compared to the most stringent Tier 1 SROs for industrial/commercial property use for initial screening purposes. Pursuant to the Part 742 regulations, the values for each of the three exposure pathways must be presented for matters of comparison and the most stringent becomes the remediation objective for a Tier 1 Evaluation.

3.2 Soil Sample Analytical Results

A total of 14 soil samples were analyzed for VOCs. The analytical results of the soil samples tested for VOCs indicated that concentrations of five of the 37 targeted compounds exceeded the most stringent Tier 1 SROs in seven of the samples analyzed. Table 3.2.1 provides a detailed breakdown of the particular pathway-specific Tier 1 SROs that were exceeded.

TABLE 3.2.1
Contaminants of Concern Exceeding Tier 1 SROs
The Morey Corporation
2659 Wisconsin Street / Downers Grove, Illinois

TACO Exposure Pathways							
Sample ID	Route Specific Values				Soil Component of Groundwater Ingestion Exposure Route		Soil Saturation Limit C _{sat}
	Industrial - Commercial		Construction Worker		Class I	Class II	
	Ingestion	Inhalation	Ingestion	Inhalation			
B-1 (3'-6')	PCE	PCE		PCE	PCE, TCE, DCE, VC	PCE, TCE, DCE	
B-1 (9'-12')					DCE		
B-2 (6'-9')					PCE		
B-6 (3'-6')					PCE, TCE, DCE, VC	PCE, TCE, DCE	
B-10 (4'-6')		PCE		PCE	PCE	PCE	
B-10 (10'-12')					PCE	PCE	
B-12 (4'-6')					MC		

Notes:

PCE = Tetrachloroethylene; TCE = Trichloroethylene; DCE = cis 1,2-Dichloroethylene; VC = Vinyl Chloride
MC = Methylene Chloride

Analytical results show that remaining VOCs in these seven soil samples and the VOCs in all other soil samples were either not detected at the stated detection limits or were detected below the most stringent Tier 1 SROs. A complete summary of soil analytical results is provided in Table No. 1 and laboratory reports are included in Appendix E. Soil sample locations and exceedances of the Tier 1 SROs are shown on Figure 4.

Soil samples B-7 (3'-6') and B-14 (3'-6'), which were collected from non-impacted areas, were also analyzed for pH and f_{oc} respectively. Results yielded a pH of 7.20 standard units

and an organic carbon content of 1.08 % (or 0.0108 g-C / g-soil), which is approximately 5 times greater than the IEPA subsurface default value of 0.2% (0.002 g-C / g-soil).

3.3 Tier 1 Evaluation – Summary

The analytical results have demonstrated that soils beneath the eastern portion of the subject site have been impacted, to varying degrees, by: tetrachloroethylene (PCE), trichloroethylene (TCE), cis 1-2 dichloroethylene (DCE), vinyl chloride (VC) and methylene chloride (MC). The soil contamination appears to be most severe beneath the former waste storage room and the floor drain discharge pipe, which was considered the apparent source area based on the information previously provided by the owner.

4.0 ENDANGERMENT ASSESSMENT / REMEDIAL OBJECTIVES DETERMINATION

4.1 Introduction

As mentioned above, the analytical results of the soil samples indicated that the subject property has been impacted by certain VOCs at concentrations above the industrial/commercial Tier 1 SROs (Figure 4). As a result, Pioneer performed an endangerment assessment in accordance with the procedures outlined in the TACO regulations. The approach of this endangerment assessment was to eliminate the groundwater ingestion pathway and to establish site-specific Tier 2 SROs for remaining pathways for those contaminants detected above the most stringent industrial/commercial Tier 1 SROs. The five COCs at the site that were analytically confirmed to exceed the most stringent industrial/commercial Tier 1 SROs for any pathway are herein referred to as Targeted COCs and have been outlined below in Table 4.1.1.

*Table 4.1.1
Targeted Contaminants of Concern*

<i>Targeted COCs</i>	<i>Pathway Exceeded</i>			
	<i>Ingestion</i>	<i>Inhalation</i>	<i>Class I</i>	<i>Class II</i>
<i>Tetrachloroethylene (PCE)</i>	X	X	X	X
<i>Trichloroethylene (TCE)</i>			X	X
<i>Cis 1,2 Dichloroethylene (DCE)</i>			X	X
<i>Vinyl Chloride (VC)</i>			X	
<i>Methylene Chloride (MC)</i>			X	

4.2 Exposure Route Evaluation

Each of the potential exposure routes was evaluated pursuant to Subpart C of the Part 742 regulations to determine the feasibility of excluding specific pathways (i.e. groundwater ingestion and migration to groundwater) for the targeted COCs identified at the site. As provided in Subpart C of the Part 742 regulations, exposure pathways may be excluded from consideration if it can be demonstrated that an actual or potential impact to a receptor

or potential receptor can be eliminated. If exposure pathways can be excluded, their corresponding objectives are no longer applicable.

However, prior to conducting an exposure pathway assessment, the specific targeted COCs must be identified at the site. Based on the analytical results of the assessment work, the compounds listed in Table 4.1.1 were the only COCs identified at the site that required investigation beyond a Tier 1 evaluation.

As outlined in Section 742.305, prior to elimination of any pathways at a site, certain minimum requirements must be evaluated and satisfied. These requirements include the following:

- The sum of the concentrations of all organic COCs shall not exceed the attenuation capacity of the soil as determined under Section 742.215 (Section 742.305(a));

Pioneer calculated the sum of the organic compounds from each of the soil samples analyzed, using the value of the corresponding detection limit when the compound was not detected. The sum of the organic COCs from the most contaminated soil sample analyzed, B-1 (3'-6'), totaled 121 ppm (Table No. 1). Therefore, based on the analytical results of the soil samples collected, and the comparison to the most stringent default attenuation capacity for the site (2,000 ppm), it has been demonstrated that the attenuation capacity of the soil has not been exceeded; thus, this requirement has been satisfied.

- The concentrations of any organic COCs remaining in the soil shall not exceed the soil saturation limit as determined under Section 742.220 (Section 742.305(b)).

The maximum concentration and the soil saturation limits of the Targeted COCs (with melting points below 30°C) have been outlined below in Table 4.2.1. As illustrated, the default soil saturation limits are not exceeded by the maximum concentration of any of the Targeted COCs; therefore, this requirement has been satisfied for the subject property.

Table 4.2.1
Maximum Concentration of COCs
(with melting points below 30°C) and Soil
Saturation Limits

Targeted COCs	Maximum Concentration (ppb)	Soil Saturation Limit (ppb)
<i>Tetrachloroethylene</i>	110,000	240,000
<i>Trichloroethylene</i>	8,000	1,300,000
<i>Cis 1,2 Dichloroethylene</i>	3,300	1,200,000
<i>Vinyl Chloride</i>	46	1,200,000
<i>Methylene Chloride</i>	40	1,200,000

- Any soil which contains COCs shall not exhibit characteristics of reactivity for hazardous waste (Section 742.305(c));

Based on the physical and chemical properties and the relative concentrations of the contaminants identified at the site, it is unlikely that the soil at the subject property would exhibit the characteristics of reactivity as outlined in 35 IAC 721.123; thus, this requirement has been satisfied.

- Any soil which contains COCs shall not exhibit a pH less than or equal to 2.0 or greater than or equal to 12.5 (Section 742.305(d)); and

Based on the result of B-7 (3'-6'), the measured pH of the soil was 7.20 standard units (Appendix E); therefore, this requirement has been satisfied.

- Any soil which contains arsenic, barium, cadmium, chromium, lead, mercury, selenium or silver shall not exhibit any of the characteristics of toxicity for hazardous waste (Section 742.305(e)).

None of the metals listed above were identified as COCs based on the nature of the REC. Therefore, this condition has been satisfied by default.

Based on the preceding evaluation, exclusion of potential exposure pathways is possible at the subject property; however, as described below, additional criteria must also be satisfied

before a particular exposure pathway can be formally excluded from consideration at the site.

4.3 Groundwater Ingestion Pathway

Pursuant to Section 742.320, the groundwater ingestion exposure route, which includes migration from soil to groundwater and direct ingestion of groundwater, may be excluded from consideration if, in addition to the criteria previously outlined in Section 4.2 of this report, the criteria described below are also satisfied. It should be noted that the Village of Downers Grove does not have a groundwater ordinance as required by Section 742.320(d). As a result, elimination of the groundwater ingestion pathway is pursued from a regulatory context under Section 742.900(c)(6). However, the information requested by Section 742.320 is still provided in the subsequent text as it discusses relevant issues needed to support groundwater ingestion pathway elimination under a Tier 3 Evaluation pursuant to Section 742.925(b).

- Corrective action measures must be completed to remove any free product to the maximum extent practicable (Section 742.320(b));

No free product was identified during site assessment activities conducted within the source area or outside the source area; thus, this requirement has been satisfied.

- The source of the release is not located within the minimum or designated maximum setback zone or within a regulated recharge area of a potable water supply well (Section 742.320(c));

Pioneer conducted an Illinois State Geological Survey (ISGS) well search to locate potable water supply wells within a one-mile radius of the source. A review of the ISGS records revealed several private water wells and one community water supply well within 2,500 feet of the site (Appendix F). A representative from the Groundwater Section of the IEPA Bureau of Water informed Pioneer the setback zone for the public water supply well is 400 feet and that there is no regulated recharge area associated with this well. The setback zone for all remaining private wells is 200 feet. Pioneer was additionally informed no maximum setback zone was established for the public water supply well referenced previously. Based on the locations of these wells, the site is not located within the minimum or

designated maximum setback zone of any potable water well or any regulated recharge area. Therefore, this condition is satisfied.

- For any area within 2,500 feet from the source of the release, an ordinance adopted by the unit of local government is in place that effectively prohibits the installation of potable water supply wells (and the use of such wells) (Section 742.320(d));

Pioneer contacted the Village of Downers Grove to determine whether the Village has an ordinance prohibiting the installation of private wells for potable purposes and to determine where the Village gets its potable water supply. Pioneer was informed the Village obtains its public water supply from the City of Chicago, via the DuPage Water Commission, which uses Lake Michigan as its source of potable water. According to the Village representatives, the Village of Downers Grove has a municipal ordinance prohibiting the installation of private wells for potable purposes where municipal water is available within 250 feet. If a business or residence is not within 250 feet of the municipal water supply system, a private well may be installed for potable purposes. Private wells may also be installed solely for irrigation purposes. The remediation site is currently serviced with municipal water and since the site is located within 250 feet of a Village water main, the installation of a private well for potable purposes would be prohibited under the municipal ordinance. A copy of this ordinance is included as Appendix G. However, since the municipal ordinance is not approved by the IEPA for TACO purposes as required under Section 742.1015, this requirement is not satisfied.

Because this condition is not met, Pioneer continued to pursue the exclusion of the groundwater ingestion exposure route under a Tier 3 Evaluation as allowed by Section 742.900(c)(6). The purpose of this Tier 3 Evaluation is to prohibit the potable use of groundwater at the site through a site-specific groundwater use restriction pursuant to Section 742.925.

As previously mentioned, there was no obvious evidence of groundwater encountered during any of Pioneer's subsurface investigation activities and the site is not located within the minimum or designated maximum setback zone of an existing potable water supply well. Further, as described in Section 4.4 of this report, Equation R-14/R-26 modeling calculations show that any *potentially* impacted groundwater would not migrate off-site at

levels above the Class I GROs, based on maximum soil concentrations and corresponding, conservative *theoretical* groundwater contamination.

Based on the information provided in connection with the pathway exclusion justification under Section 742.925 (including Section 742.320), Pioneer believes it has been adequately demonstrated that both the soil and groundwater components of the groundwater ingestion exposure route can be excluded from consideration at this site, as allowed under a Tier 3 Evaluation (Section 742.900[c][6]). An institutional control, in the form of the NFR Letter for the site, will be utilized to prohibit the potable use of groundwater at the site.

4.4 Equation R-14 / R-26 Modeling

Equations R-14 and R-26 were utilized to model predicted future impacts associated with the residual soil contamination at the site. The source area was identified as the area beneath the former waste storage room and the floor drain discharge pipe outside the subject building and is delineated as shown on Figure 4.

Since there was no obvious evidence of groundwater at the site, Equation R-14 was used to predict theoretical groundwater impacts from soil contaminants leaching to groundwater. *Maximum* detected soil concentrations from actual samples collected from the site were used to predict the most conservative theoretical groundwater impacts (C_{source}). The corresponding C_{source} values were then inputted into Equation R-26 to evaluate the current and future potential for impacted groundwater to migrate as a result of the impacted soil leaching to groundwater.

The site-specific input values required for Equation R-14 include the hydraulic conductivity (K), the hydraulic gradient (i), pH, fraction of organic carbon (f_{oc}) and source area dimensions as described below.

- Hydraulic Conductivity (K)

According to the Berg Circular for "E" type soils, typical hydraulic conductivity values range from 10^{-9} to 10^{-7} cm/s. However, Pioneer used a hydraulic conductivity value of 10^{-5} cm/s as a conservative measure.

- Hydraulic Gradient (i)

Pioneer used a hydraulic gradient of 0.01 ft/ft for the calculations. This is a very conservative value given the lack of groundwater observed during the subsurface investigation.

- pH

Pioneer used a site-specific pH of 7.20 standard units as measured from the site's soil (B-7[3'-6']).

- Organic Carbon (f_{oc})

Pioneer used a site-specific f_{oc} value of 1.08% (B-14 [3'-6']) as measured from the site's soil.

- Source Area Dimensions (W, S_w , X)

Site-specific source area parameters used in the R-14/R-26 calculations are shown on Figure 4. These parameters include: width of source area parallel to the direction of groundwater movement (W); source width perpendicular to the groundwater flow direction in the horizontal plane (S_w); and the distance along the centerline of the groundwater plume in the direction of groundwater flow (X). Since the eastern property line is closest to the source area, the distance from the source to the eastern property line was used as 'X' to provide the most conservative result for the R-26 modeling calculation. Remaining parameters are IEPA default values found in 35 IAC 742. Results of Equation R-26 calculations indicated that the Class I GROs would be achieved at the nearest property border (i.e. eastern property line). The R-14/R-26 modeling calculations are included in Appendix H.

4.5 Tier 2 Soil Evaluation

Since the groundwater ingestion pathway and the soil component of the groundwater ingestion pathway have been eliminated under a Tier 3 Evaluation, the remaining pathways (i.e. inhalation, ingestion) were evaluated under a Tier 2 Evaluation. Given the site's intended industrial/commercial redevelopment, Pioneer developed industrial/commercial Tier 2 SROs for the inhalation and ingestion pathways in order to calculate higher, yet acceptable remediation objectives. Pursuant to Subparts F and G of the Part 742 regulations, Tier 2 SROs may be developed utilizing site-specific information and are considered to be equally protective of human health and the environment even though they are less stringent than the conservative Tier 1 SROs.

As outlined in Section 742.600(e), prior to developing Tier 2 SROs for a site, certain minimum requirements must be evaluated and satisfied. These requirements are provided below and are followed by an explanation of how they apply to the subject property.

- The sum of all organic COCs shall not exceed the attenuation capacity of the soil (Sections 742.600(e)(1) and 742.215);

This condition has been met as previously outlined in Section 4.2.

- If more than one noncarcinogenic COC at the site affects the same target organ, the calculated remediation values shall be corrected for cumulative effects (Sections 742.600(e)(2) and 742.720);

Of the site's Targeted COCs (PCE, TCE, DCE, VC and MC), DCE is the only *noncarcinogenic* COC. Because not more than one *noncarcinogenic* COC is present at the site, remediation values were not corrected and this requirement is satisfied.

- For any organic COC with a melting point below 30°C, the concentration remaining in the soil shall not exceed the soil saturation limit (Sections 742.600(e)(3) and 742.220).

This condition has been met as previously discussed in Section 4.2 (See Table 4.2.1).

Since each of these initial conditions was satisfied, a Tier 2 analysis was considered valid for the subject property. Therefore, Pioneer established Tier 2 SROs for both of the remaining exposure pathways (i.e. inhalation and ingestion). Pioneer utilized the Soil Screening Level (SSL) equations as provided in Section 742.710 to calculate the Tier 2 values. Tier 2 SROs were calculated utilizing a widely accepted third-party software program (TACO PRO™ [2.0]). Tier 2 SROs were calculated for two populations, industrial/commercial workers and commercial workers.

Site-specific variables used during the Tier 2 calculations were limited to include only the measured pH (7.20), the organic carbon fraction of the soil collected from the site (1.08%), and the finite source area dimensions (Figure 4). The IEPA default values provided in Appendix C of the Part 742 regulations were used for all remaining parameters. See Appendix H for a copy of the appropriate IEPA Tier 2 data worksheets containing the Tier 2 SROs calculated for the Targeted COCs as well as a list of the TACO equations used to develop the Tier 2 SROs. Table 4.5.1 compares maximum site concentrations of the targeted COCs to the Tier 2 SROs calculated for the industrial/commercial populations as they are more stringent than the Tier 2 SROs calculated for the construction worker population as required by Section 742.600(h) (Appendix H).

TABLE 4.5.1
Tier 2 Industrial/Commercial SROs
The Morey Corporation
2659 Wisconsin Street / Downers Grove, Illinois

<i>COC</i>	<i>Maximum Site Concentration</i>	<i>Ingestion (Ind/Comm)</i>	<i>Inhalation (Ind/Comm)</i>	<i>C_{sm} (Surficial)</i>
Tetrachloroethylene	110,000	110,062	144,728	382,949
Trichloroethylene	8,000	520,291	49,378	2,168,731
cis-1,2-Dichloroethylene	3,300	20,440,000	1,801,007	1,801,007
Vinyl Chloride	46	3,012	999	1,402,301
Methylene Chloride	40	763,093	178,600	3,160,595

All concentrations in µg/kg.

As indicated by a comparison of the maximum detected concentrations at the site to the most stringent industrial/commercial Tier 2 SROs calculated using TACO equations (Table No. 4.5.1), it was determined that the concentrations of COCs at the site are all less than the calculated Tier 2 SROs for industrial/commercial land use. Therefore, given the elimination of the groundwater ingestion pathway and the use of Tier 2 SROs, the actual risk posed by the residual COCs has been mitigated and the impacted soil may be adequately managed in-place.

5.0 FINDINGS

5.1 Summary

Pioneer was contracted by MC Holdings, Inc. (Remediation Applicant / client) to conduct a "focused" site investigation and provide environmental consulting services for the subject site located at 2659 Wisconsin Street in Downers Grove, Illinois (Figure 1). The purpose of the site investigation was to determine/verify whether subsurface soils had been impacted by VOC-contamination and then use the regulatory options provided in 35 IAC Parts 740 and 742 to address the impacts and obtain a "focused" No Further Remediation Letter for the remediation site. Pioneer was informed by the owner that the soils near the east-central portion of the subject building were impacted with VOC contamination related to accidental spills of cleaning solvents in a waste storage room during past facility operations.

Pioneer mobilized to the subject site to perform site characterization work on August 28 and 29, 2000. As a result, 15 soil borings were advanced at various locations on the subject site and select samples were analyzed for VOCs, the COCs established based on the source.

The Tier 1 Evaluation revealed that soil was impacted by certain chlorinated VOCs above industrial/commercial Tier 1 SROs to varying degrees. The assessment activities indicated the contamination was mainly present beneath the building and pavement within the source area and from near surface grade to approximately six feet BSG near the eastern portion of the subject site. Based on the results of the soil testing, the horizontal and vertical extent of contamination was adequately defined.

Pioneer then performed an endangerment assessment in accordance with TACO regulations to justify the elimination of the groundwater ingestion pathway (soil migration to groundwater) and to develop Tier 2 SROs for the targeted COCs at the site. The groundwater ingestion pathway was eliminated under a Tier 3 Evaluation pursuant to Section 742.925. Equations R-14 and R-26 were utilized to evaluate the potential for

theoretical, predicted future groundwater impacts to migrate. Results of the conservative modeling calculations indicated that the *potential* concentrations of COCs in groundwater would not migrate off-site at concentrations exceeding the Class I GROs as modeled from the source area to the nearest property boundary (Figure 4, Appendix H).

Pioneer then developed Tier 2 SROs for industrial/commercial and construction worker populations to address the remaining exceedances of the Tier 1 SROs for the ingestion and inhalation pathways. The only site-specific variables used for the Tier 2 calculations were the finite source area dimensions (Figure 4), pH (7.20) and the fraction of organic carbon (1.08%); TACO default values were used for all other parameters. Maximum soil contaminant concentrations were compared to the calculated Tier 2 SROs. Since there were no actual site concentrations that exceeded the most stringent calculated Tier 2 SROs (Table 4.5.1), it was determined that no further investigation was warranted and the residual contamination could be adequately managed in-place. A Site Base Map showing the area of contaminants remaining in-place is included as Figure 5.

5.2 Conclusions

Based on the site characterization work which has adequately defined the nature and extent of contamination and the endangerment assessment performed in accordance with the TACO regulations, Pioneer has demonstrated that the applicable remediation objectives have been achieved and that the risk associated with the soil contamination identified at the subject site can be adequately managed in-place. Thus, Pioneer maintains that no further remedial action is warranted in connection with the subsurface impacts identified at the subject site. In addition, Pioneer believes the site conditions warrant the issuance of a "focused" No Further Remediation Letter from the IEPA as acknowledgment of formal site closure in accordance with 35 IAC 740.430 and 415 ILCS 5/58.10 of the Illinois Environmental Protection Act. Pioneer respectfully requests the NFR letter include the following conditions and institutional controls:

- The land use is limited to industrial/commercial use;

- No person shall construct, install, maintain, or operate a water system or well at the remediation site for potable purposes;
- There are no engineering controls;
- Any contaminated soil (or groundwater) that is removed, excavated, or disturbed from the subject property must be handled in accordance with applicable laws and regulations; and
- The NFR Letter shall be recorded as a permanent part of the chain of title for the subject property and serve as an appropriate institutional control.

6.0 CLOSING REMARKS

This report has been prepared for the sole use of the client identified in the report and evaluation by the Illinois EPA, and can not be relied upon by other persons or entities without the joint permission of the client and Pioneer Environmental, Inc. (Pioneer). The observations and conclusions contained herein are limited by the scope and intent of the work mutually agreed upon by the client and Pioneer and the work actually performed. There are no warranties, implied or expressed, concerning the environmental integrity of areas and/or mediums not analytically tested.

7.0 REFERENCES

American Society for Testing and Materials. 1984. "Standard Method for Penetration Test and Split-Barrel Sampling of Soils". (ASTM D1586). Reprinted from *Annual Book of ASTM Standards*, Vol 04.08.

Berg, Richard C. et al. 1984. *Potential for Contamination of Shallow Aquifers in Illinois*. Illinois State Geological Survey Circular 532.

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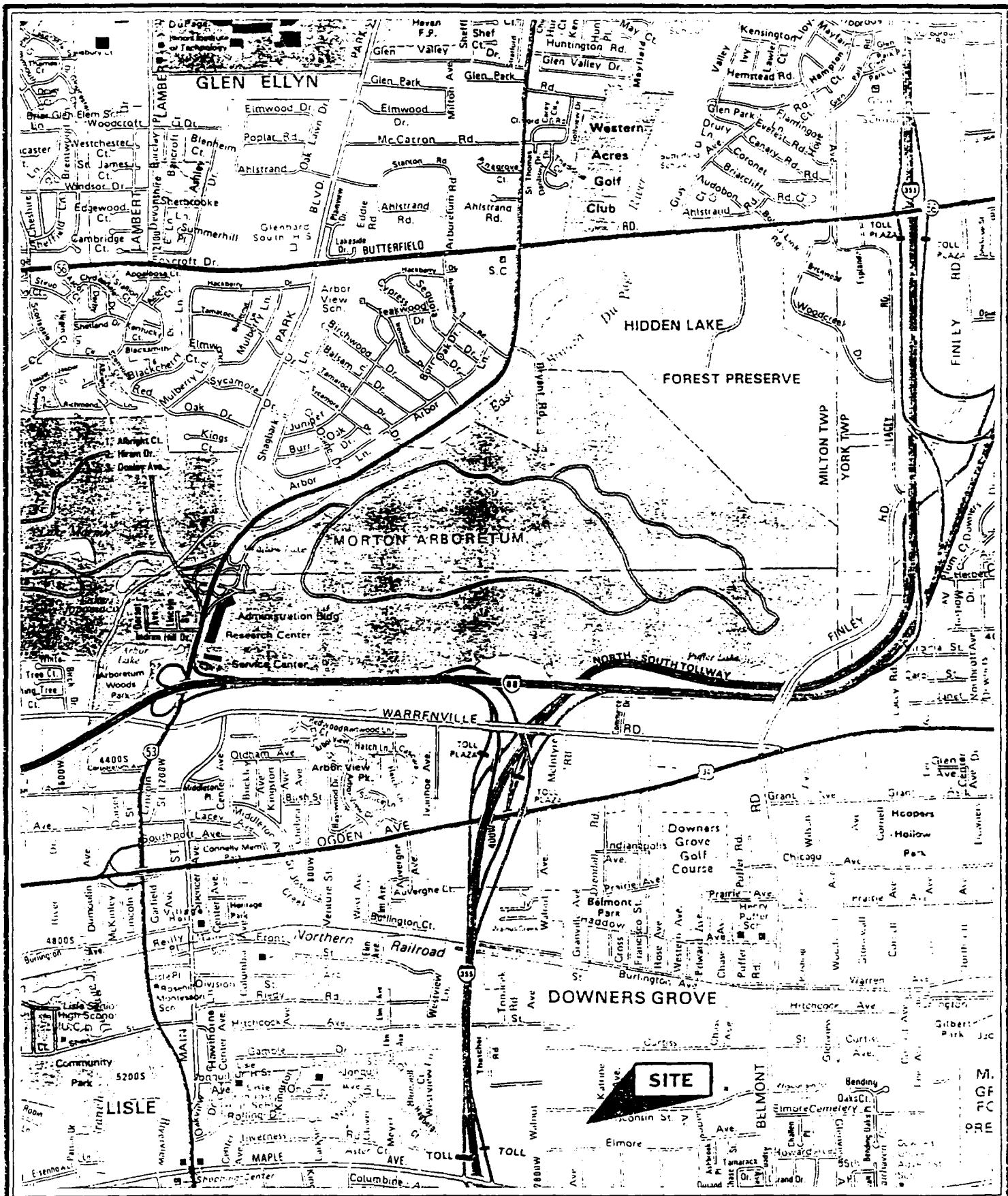
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Willman, H.B. 1971. *Summary of the Geology of the Chicago Area*. Illinois State Geological Survey Circular 460.

LIST OF FIGURES

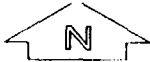
Figure 1:	Area Map
Figure 2:	Site Map
Figure 3:	Soil Boring Locations
Figure 4:	Tier 1 SRO Exceedances
Figure 5:	Site Base Map



PIONEER
ENVIRONMENTAL, INC.

FIGURE 1
Area Map

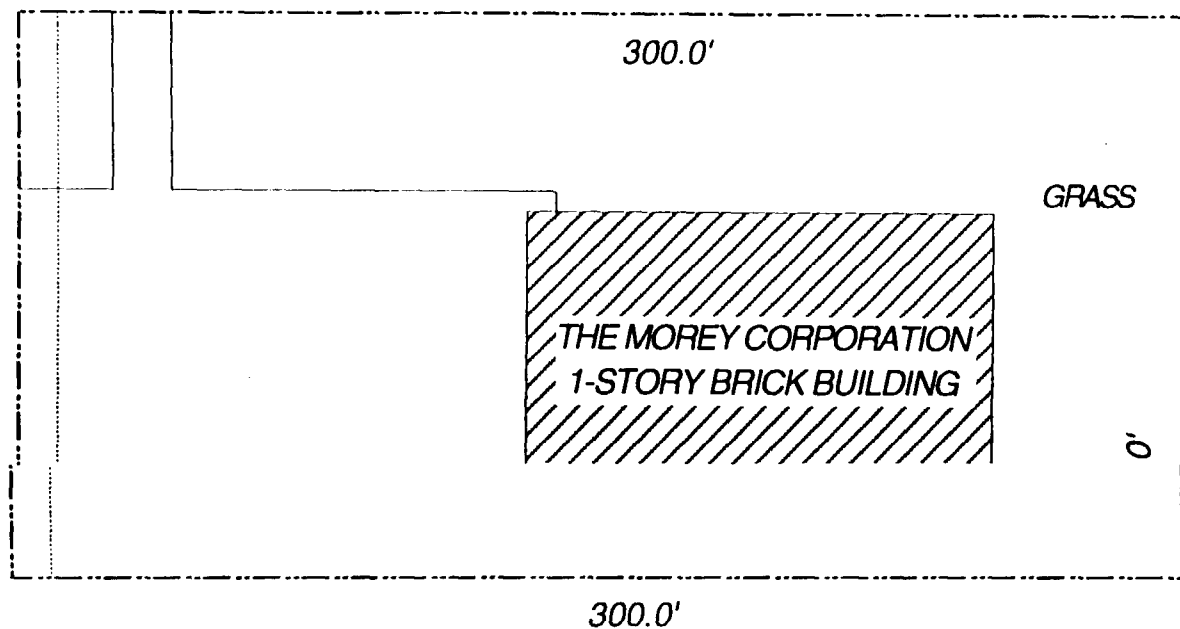
DATE: 1999



AMKUS RESCUE SYSTEMS

NOVARTIS SEEDS

WISCONSIN STREET



ELMORE AVENUE (DEDICATED)

RESIDENTIAL (UNINCORPORATED DOWNERS GROVE)

PIONEER
ENVIRONMENTAL, INC.

Legend:

1. PROPERTY LINE

Scale:
1" = 50'

Drawn by:
T. Brechelsen

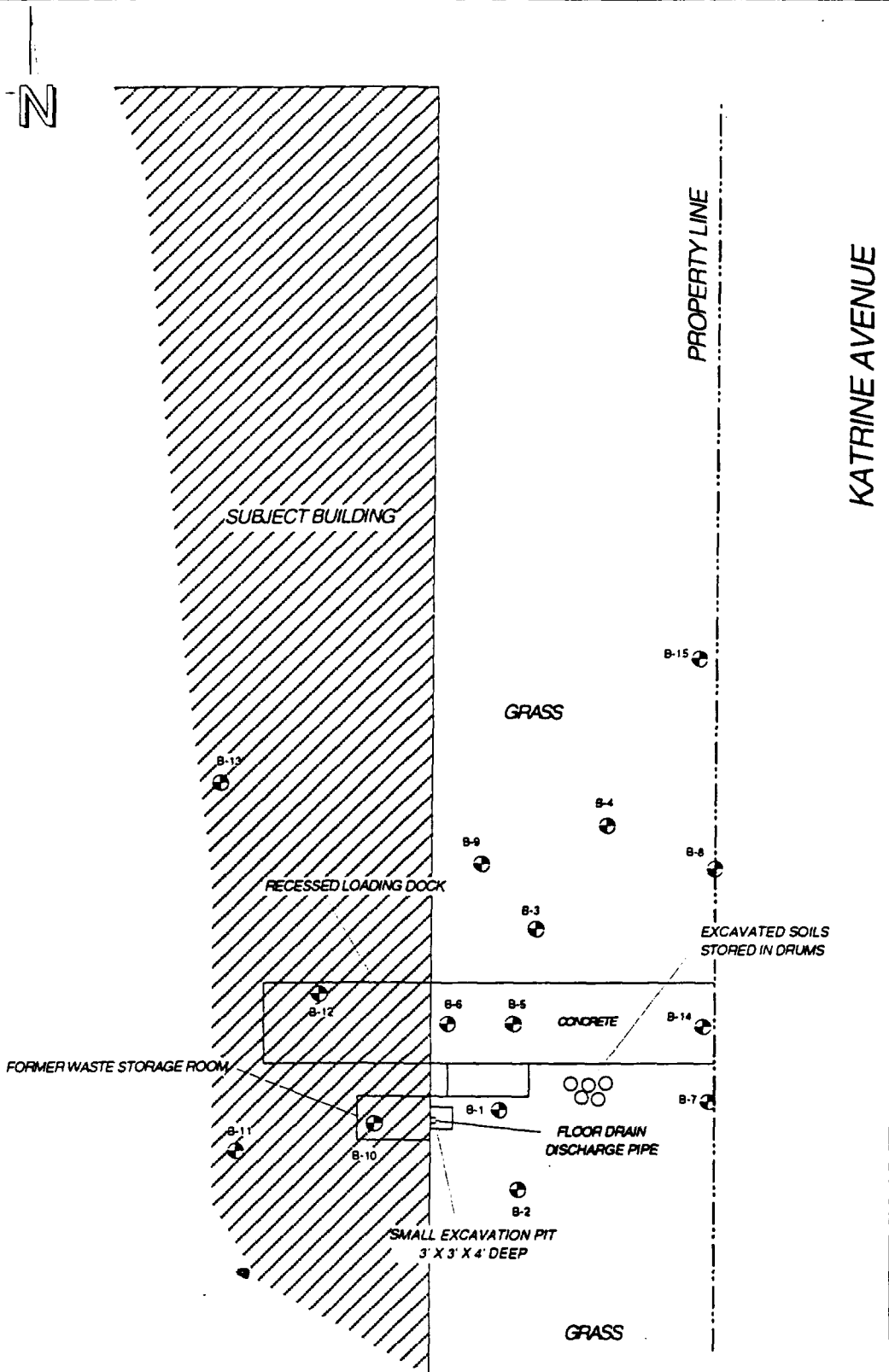
Job No.:
00618

Date:
August, 2000

Checked by:
W. Smith

Figure 2

Remediation Site
The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois



PIONEER
ENVIRONMENTAL, INC.

Scale: 1" = 30'

Date: October, 2000

Drawn by: T. Brecheson

Checked by: W. Smith

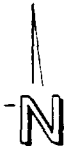


Soil Boring Location

Job No. 00618

Figure 3

Soil Boring Locations
The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois



LEGEND

PCE = Tetrachloroethylene

TCE = Trichloroethylene

DCE = cis-1,2 Dichloroethylene

VC = Vinyl Chloride

MC = Methylene Chloride

All concentrations in ug/kg (ppb).

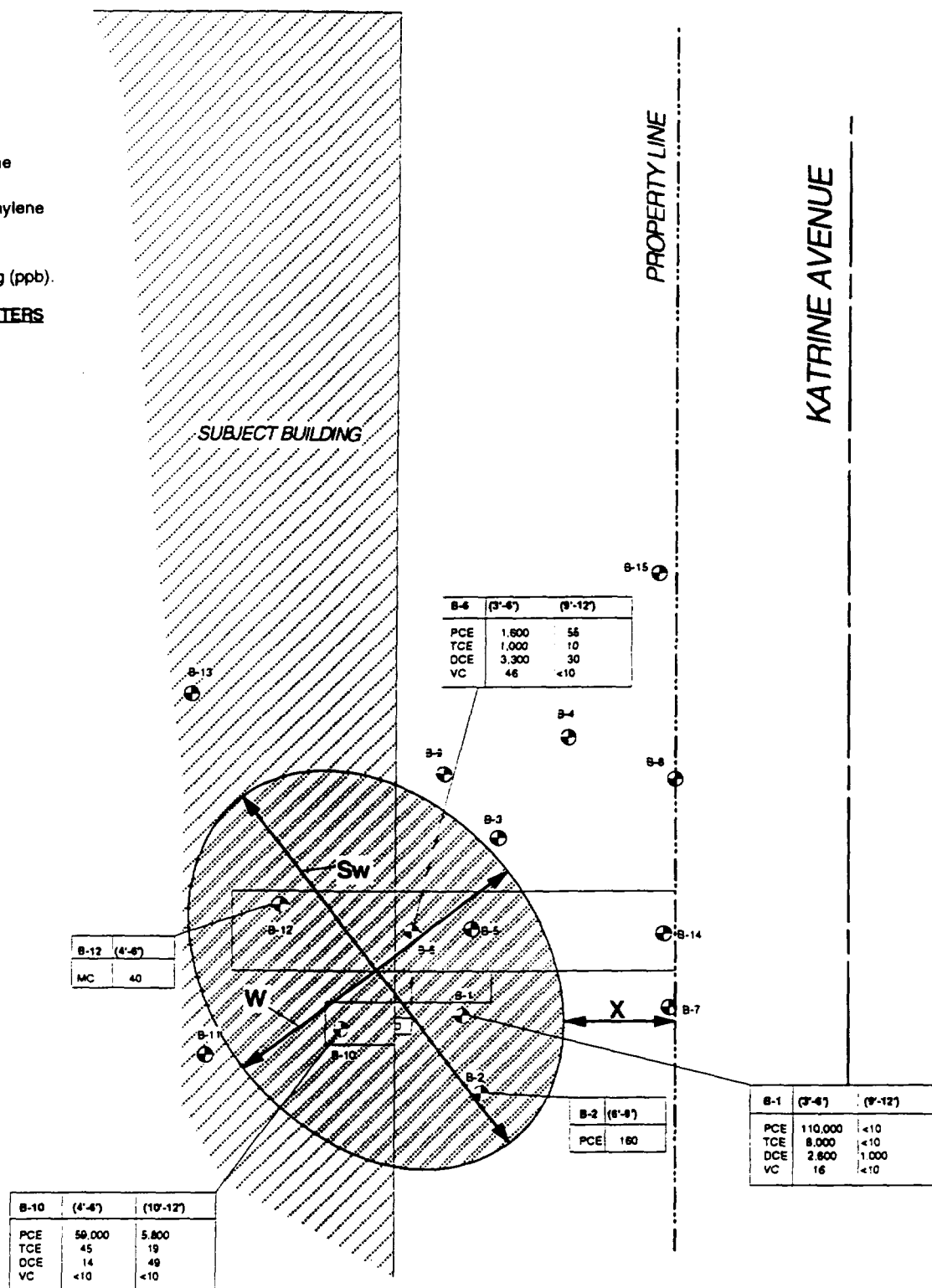
SOURCE AREA PARAMETERS

W = 60 feet

Sw = 80 feet

X = 20 feet

A = 0.087 acre



PIONEER
ENVIRONMENTAL, INC.

Scale: 1" = 30'

Date: October, 2000

Drawn by: T. Brecheisen

Checked by: W. Smith

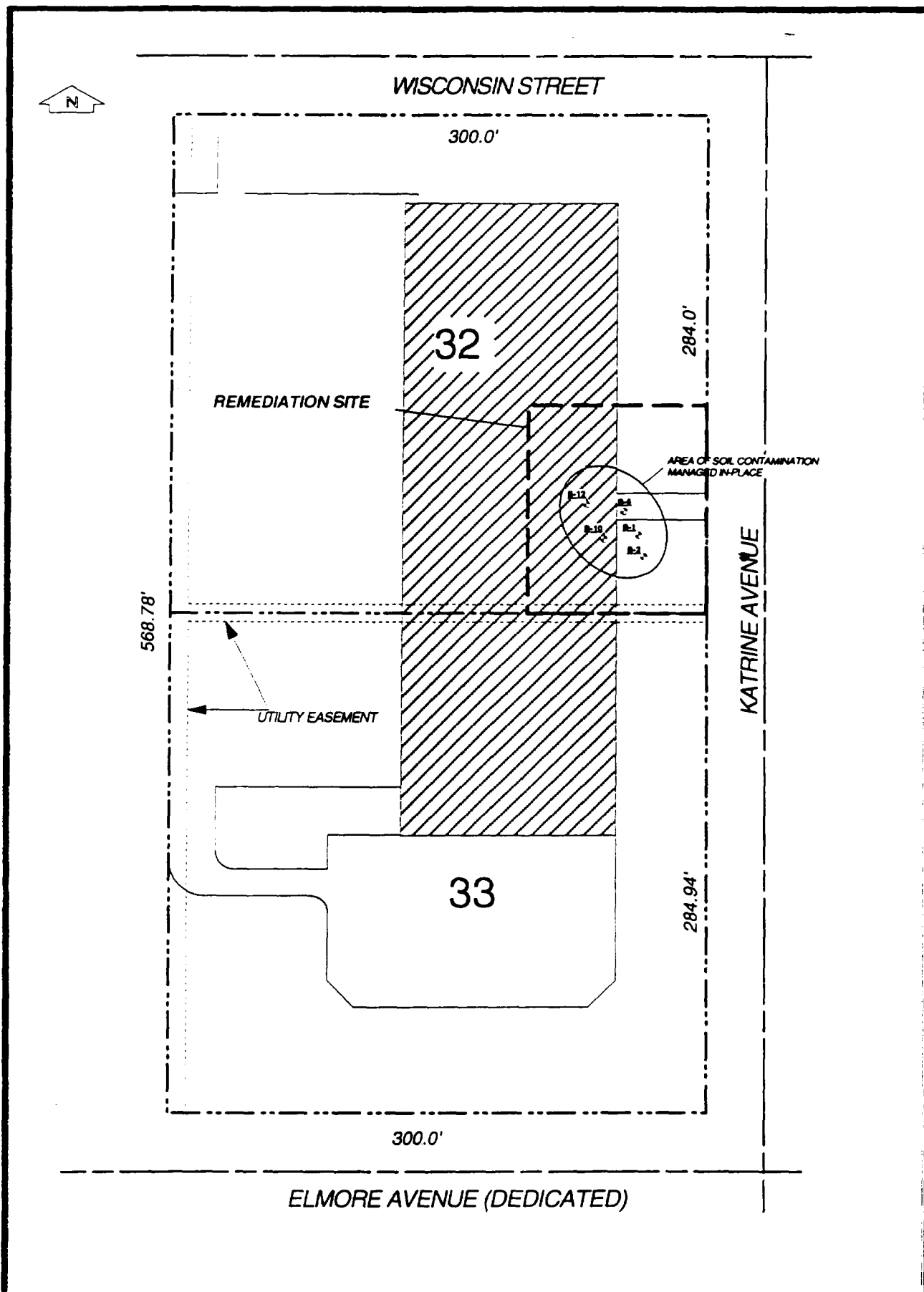


Soil Boring Location

Job No. 00618

Figure 4
Tier 1 SRO Exceedances
The Morey Corporation
Downers Grove, Illinois

SITE BASE MAP
 0430305029 - COOK COUNTY
 DOWNERS GROVE / 2659 WISCONSIN STREET
 SITE REMEDIATION PROGRAM



PIONEER
 ENVIRONMENTAL, INC.

Legend:
 * Soil Boring Location
 exceeding Tier 1 SRCs
 (Industrial/Commercial)

Scale:
 1" = 30'
 Date:
 August, 2000
 Drawn by:
 T. Brecheisen
 Checked by:
 W. Smith
 Job No.: 00618

Figure 5
 Site Base Map
 The Morey Corporation
 Downers Grove, Illinois

LIST OF TABLES

Table 1: Soil Analytical Results: VOCs

TABLE NO. 1 (page 1 of 2)
Soil Sample Analytical Results: Illinois VOCs
The Morey Corporation
2659 Wisconsin Street / Downers Grove, Illinois

ANALYTE								Tier 1 Soil Remediation Objectives (Tier 1 SROs) Industrial/Commercial Property Use*						Soil Saturation Limit C _u
								Route Specific Values				Soil Component of Groundwater Ingestion		
								Industrial - Commercial		Construction Worker		Exposure Route		
	B-1 (3'-6')	B-1 (9'-12')	B-2 (6'-9')	B-3 (3'-6')	B-5 (6'-9')	B-6 (3'-6')	B-6 (9'-12')	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	
2-Butanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--
Methyl isobutyl ketone	<10.0	<10.0	<10.0	<10.0	20	<10.0	<10.0	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--
1,1-Dichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	1,700,000	200,000,000	130,000	23,000	110,000	1,700,000
1,1-Dichloroethene	<10.0	<10.0	<10.0	<10.0	<10.0	18	<10.0	18,000,000	1,500,000	1,800,000	1,500,000	60.0	300	1,500,000
1,2-Dibromo-3-chloropropane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	4,000	17,000	89,000	110	2.0	2.0	1,400,000
1,2-Dibromomethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	70.0	320	1,500	450	0.4	4.0	2,800,000
1,2-Dichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	63,000	700	1,400,000	990	20.0	100	1,800,000
1,2-Dichloropropane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	84,000	23,000	1,800,000	500	30.0	150	1,100,000
1,3-Dichloropropene (total)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	33,000	230	610,000	330	4.0	20.0	1,400,000
1,1,1-Trichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	1,200,000	--	1,200,000	2,000	9,600	1,200,000
1,1,2-Trichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	8,200,000	1,800,000	8,200,000	1,800,000	20.0	300	1,800,000
1,1,2,2-Tetrachloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	100,000,000	200,000,000	100,000,000	16,000	16,000	100,000,000
Benzene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000	1,500	4,300,000	2,100	30.0	170	870,000
Bromodichloromethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	92,000	3,000,000	2,000,000	3,000,000	600	600	3,000,000
Bromoform	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	720,000	100,000	16,000,000	140,000	800	800	1,900,000
Bromomethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	2,900,000	15,000	1,000,000	3,900	200	1,200	3,200,000
Butanol	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	10,000,000	200,000,000	10,000,000	17,000	17,000	10,000,000
Carbon Disulfide	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	720,000	20,000,000	9,000	32,000.0	160,000	720,000
Carbon Tetrachloride	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	44,000	640	410,000	900	70.0	330	1,100,000
Chlorobenzene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	41,000,000	210,000	4,100,000	1,300	1,000	6,500	680,000
Chlorodibromomethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	41,000,000	1,300,000	41,000,000	1,300,000	400	400	1,300,000
Chloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--
Chloroform	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	940,000	540	2,000,000	760	600	2,900	2,900,000
Chloromethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--
cis 1,2-Dichloroethene	2,600	1,000	<10.0	<10.0	<10.0	3,300	30	20,000,000	1,200,000	20,000,000	1,200,000	400	1,100	1,200,000
Ethylbenzene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	400,000	20,000,000	58,000	13,000	19,000	400,000
Methylene Chloride	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	760,000	24,000	12,000,000	34,000	20.0	200	2,400,000
Styrene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	410,000,000	1,500,000	41,000,000	430,000	4,000	18,000	1,500,000
Tetrachloroethene	110,000	<10.0	160	<10.0	<10.0	1,600	55	110,000	20,000	2,400,000	28,000	60.0	300	240,000
Toluene	<10.0	<10.0	<10.0	<10.0	<10.0	14	<10.0	410,000,000	650,000	410,000,000	42,000	12,000	29,000	650,000
trans 1,2-Dichloroethene	35	22	<10.0	<10.0	<10.0	91	<10.0	41,000,000	3,100,000	41,000,000	3,100,000	700	3,400	3,100,000
Trichloroethene	8,000	<10.0	<10.0	<10.0	<10.0	1,000	10	520,000	8,900	1,200,000	12,000	60.0	300	1,300,000
Vinyl Acetate	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	1,000,000,000	1,600,000	200,000,000	10,000	170,000.0	170,000.0	2,700,000
Vinyl Chloride	16	<10.0	<10.0	<10.0	<10.0	46	<10.0	3,000	60.0	65,000	80.0	10.0	70.0	1,200,000
Xylenes (total)	<30.0	<30.0	<30.0	<30.0	<30.0	<30.0	<30.0	1,000,000,000	410,000	410,000,000	410,000	150,000	150,000	410,000

Notes:

Results listed in µg/kg (parts per billion-ppb)

EPA test method SW846, 8260/5035

"<" indicates not detected at stated detection limits

" - " indicates value not available

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO

(*) Pursuant to 35 IAC 742 - Tiered Approach to Corrective Action Objectives

TABLE NO. 1 (page 2 of 2)
Soil Sample Analytical Results: Illinois VOCs
The Morey Corporation
2659 Wisconsin Street / Downers Grove, Illinois

								Tier 1 Soil Remediation Objectives (Tier 1 SROs) Industrial/Commercial Property Use*						Soil Saturation Limit	
								Route Specific Values				Soil Component of Groundwater Ingestion			Soil Saturation Limit
								Industrial - Commercial		Construction Worker		Exposure Route			
ANALYTE	B-7 (3'-6')	B-10 (4'-6')	B-10 (10'-12')	B-11 (4'-6')	B-12 (4'-6')	B-13 (6'-8')	B-14 (6'-9')	Ingestion	Inhalation	Ingestion	Inhalation	Class I	Class II	C _u	
2-Butanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--	
2-Hexanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--	
4-Methyl-2-Pentanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--	
1,1-Dichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	1,700,000	200,000,000	130,000	23,000	110,000	1,700,000	
1,1-Dichloroethene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	18,000,000	1,500,000	1,800,000	1,500,000	60.0	300	1,500,000	
1,2-Dibromo-3-chloropropane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	4,000	17,000	89,000	110	2.0	2.0	1,400,000	
1,2-Dibromoethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	70.0	320	1,500	450	0.4	4.0	2,800,000	
1,2-Dichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	63,000	700	1,400,000	990	20.0	100	1,800,000	
1,2-Dichloropropane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	84,000	23,000	1,800,000	500	30.0	150	1,100,000	
1,3-Dichloropropene (total)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	33,000	230	610,000	330	4.0	20.0	1,400,000	
1,1,1-Trichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	1,200,000	--	1,200,000	2,000	9,600	1,200,000	
1,1,2-Trichloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	8,200,000	1,800,000	8,200,000	1,800,000	20.0	300	1,800,000	
1,1,2,2-Tetrachloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--	
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	100,000,000	200,000,000	100,000,000	16,000	16,000	100,000,000	
Benzene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000	1,500	4,300,000	2,100	30.0	170	870,000	
Bromodichloromethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	92,000	3,000,000	2,000,000	3,000,000	600	600	3,000,000	
Bromoform	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	720,000	100,000	16,000,000	140,000	800	800	1,900,000	
Bromomethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	2,900,000	15,000	1,000,000	3,900	200	1,200	3,200,000	
Butanol	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	10,000,000	200,000,000	10,000,000	17,000	17,000	10,000,000	
Carbon Disulfide	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	720,000	20,000,000	9,000	32,000.0	160,000	720,000	
Carbon Tetrachloride	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	44,000	640	410,000	900	70.0	330	1,100,000	
Chlorobenzene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	41,000,000	210,000	4,100,000	1,300	1,000	6,500	680,000	
Chlorodibromomethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	41,000,000	1,300,000	41,000,000	1,300,000	400	400	1,300,000	
Chloroethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--	
Chloroform	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	940,000	540	2,000,000	760	600	2,900	2,900,000	
Chloromethane	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--	--	--	--	--	--	
cis 1,2-Dichloroethene	<10.0	14	49	<10.0	<10.0	<10.0	<10.0	20,000,000	1,200,000	20,000,000	1,200,000	400	1,100	1,200,000	
Ethylbenzene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	200,000,000	400,000	20,000,000	58,000	13,000	19,000	400,000	
Methylene Chloride	<10.0	<10.0	<10.0	<10.0	40	<10.0	<10.0	760,000	24,000	12,000,000	34,000	20.0	200	2,400,000	
Styrene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	410,000,000	1,500,000	41,000,000	430,000	4,000	18,000	1,500,000	
Tetrachloroethene	<10.0	59,000	5,800	<10.0	<10.0	<10.0	<10.0	110,000	20,000	2,400,000	28,000	60.0	300	240,000	
Toluene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	410,000,000	650,000	410,000,000	42,000	12,000	29,000	650,000	
trans 1,2-Dichloroethene	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	41,000,000	3,100,000	41,000,000	3,100,000	700	3,400	3,100,000	
Trichloroethene	<10.0	45	19	<10.0	<10.0	<10.0	<10.0	520,000	8,900	1,200,000	12,000	60.0	300	1,300,000	
Vinyl Acetate	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	1,000,000,000	1,600,000	200,000,000	10,000	170,000.0	170,000.0	2,700,000	
Vinyl Chloride	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	3,000	60.0	65,000	80.0	10.0	70.0	1,200,000	
Xylenes (total)	<30.0	<30.0	15	<30.0	<30.0	<30.0	<30.0	1,000,000,000	410,000	410,000,000	410,000	150,000	150,000	410,000	

Notes:

Results listed in µg/kg (parts per billion-ppb)

EPA test method SW846, 8260/5035

"<" indicates not detected at stated detection limits

"--" indicates value not available

Shaded/Bolded cell indicates concentration detected above most stringent Tier 1 SRO

(*) Pursuant to 35 IAC 742 - Tiered Approach to Corrective Action Objectives

APPENDIX A

SRP Enrollment Forms
Property Identification Number
Legal Property Description

Illinois Environmental Protection Agency
Bureau of Land
Remedial Project Management Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

FOR ILLINOIS EPA USE:

Log No. _____

\$500 Advance Partial Payment Included
DRM-2 SRP Form Included
DRM-3 Request for Assessment Included
DRM-4 Tax Credit Budget Plan Included

Site Remediation Program Application and Services Agreement (DRM- 1) Form

I. Site Identification:

Site Name: <u>The Morey Corporation</u>	
Street Address: <u>2659 Wisconsin Street</u>	
City: <u>Downers Grove</u>	ZIP Code: <u>60515</u>
County: <u>Cook</u>	Approximate Size of Site (Acres): <u>3.9</u>
Illinois Inventory I. D. Number: <u>0430305029</u>	U.S. EPA I.D. Number: <u>ILD025415266</u>
Site Base Map Attached <input checked="" type="checkbox"/>	Illinois EPA Permit(s): <u>NA</u>
LUST/HEMA Incident Number(s), if applicable: <u>NA</u>	

II. Remediation Applicant ("RA"):

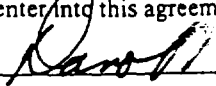
RA's Name: <u>Dana Morey</u>	Title: <u>Co-Owner</u>
Company: <u>MC Holdings, Inc.</u>	
Street Address: <u>100 Morey Drive</u>	
City: <u>Woodridge</u>	State: <u>IL</u> ZIP Code: <u>60517</u>
Phone: <u>630.754.2124</u>	FEIN or SSN: <u>36-4077561</u>

I hereby certify that I am authorized to sign this application and services agreement. I certify that the proposed project meets the eligibility criteria set forth in Section 58.1(a)(2) of the Environmental Protection Act (415 ILCS 5/58.1(a)(2)) and regulations promulgated thereunder and that this submittal and all attachments were prepared at my direction. In consideration for the Illinois EPA's agreement to provide (subject to applicable law, available resources, and receipt of the advance partial payment) review and evaluation services for activities carried out pursuant to Title 17 of the Illinois Environmental Protection Act (415 ILCS 5/58-58.12), I agree to:

- (1) Conform with the procedures of Title 17 of the Illinois Environmental Protection Act (415 ILCS 5/58 - 58.12) and implementing regulations;
- (2) Allow for or otherwise arrange site visits or other site evaluations by the Illinois EPA when requested;
- (3) To pay any reasonable costs incurred and documented by the Illinois EPA in providing such services; and
- (4) Make an advance partial payment to the Illinois EPA for such anticipated services provided in Section V of this application.

As the Remediation Applicant, I understand that I may terminate this services agreement at any time, by notifying the Illinois EPA in writing that services previously requested under the services agreement are no longer wanted. Within 180 days after receipt of the notice, the Illinois EPA shall provide me with a final invoice for services provided until the date of receipt of such notification.

To the best of my knowledge and belief, this request and all attachments are true, accurate and complete. I hereby certify that I have the authority to enter into this agreement.

RA's Signature:  Date: 10-31-00

III. Project Objectives:

A.	Release Letter Requested. Please complete one of the subsections by checking applicable boxes and including other information (if necessary, additional information may be attached to this application form):	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <input type="checkbox"/> Comprehensive No Further Remediation ("NFR") Letter </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <input checked="" type="checkbox"/> Focused NFR Letter Identify the focused contaminants of concern by checking the applicable box(es): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input checked="" type="checkbox"/> Volatiles <input type="checkbox"/> BTEX <input type="checkbox"/> PCBs <input type="checkbox"/> Metals </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input type="checkbox"/> Semivolatiles <input type="checkbox"/> PNAs <input type="checkbox"/> Pesticides </div> Other (identify): _____ </div> <div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> 4(y) Letter Identify the focused contaminants of concern by checking the applicable box(es): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input type="checkbox"/> Volatiles <input type="checkbox"/> BTEX <input type="checkbox"/> PCBs <input type="checkbox"/> Metals </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input type="checkbox"/> Semivolatiles <input type="checkbox"/> PNAs <input type="checkbox"/> Pesticides </div> Other (identify): _____ Identify the media of concern by checking applicable boxes: <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input type="checkbox"/> Soil <input type="checkbox"/> Sediments Other: _____ </div> Identify the actions (e.g., drum removal, spill response, etc.): <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 10px;"></div> </div>										
B.	Identify any support services being sought from the Illinois EPA in addition to the review and evaluation services (if necessary, additional information may be attached to this application form):	<input checked="" type="checkbox"/> No additional support services are being sought <input type="checkbox"/> Assistance with community relations <input type="checkbox"/> Environmental Remediation Tax Credit Budget Review (Attach DRM-4 application) <input type="checkbox"/> Sample collection and analyses Other (identify): _____										
C.	Anticipated Schedule	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">SRP Document</th><th style="width: 40%;">Projected Date of Receipt by Illinois EPA</th></tr> </thead> <tbody> <tr> <td>Site Investigation Report</td><td>11-1-2000</td></tr> <tr> <td>Remediation Objectives Report</td><td>11-1-2000</td></tr> <tr> <td>Remedial Action Plan</td><td></td></tr> <tr> <td>Remedial Action Completion report</td><td>11-1-2000</td></tr> </tbody> </table>	SRP Document	Projected Date of Receipt by Illinois EPA	Site Investigation Report	11-1-2000	Remediation Objectives Report	11-1-2000	Remedial Action Plan		Remedial Action Completion report	11-1-2000
SRP Document	Projected Date of Receipt by Illinois EPA											
Site Investigation Report	11-1-2000											
Remediation Objectives Report	11-1-2000											
Remedial Action Plan												
Remedial Action Completion report	11-1-2000											
D.	Identify the current and post-remediation uses of the remediation site (if necessary, additional information may be attached to this application form):	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Current Use: Vacant</div> <div style="border: 1px solid black; padding: 5px;">Post-Remediation Use: Industrial/Commercial</div>										

IV. Written Permission from the Property Owner (check one of the applicable boxes and provide additional information):

<input checked="" type="checkbox"/> RA is the property owner of the remediation site identified in Section I of this application.
<input type="checkbox"/> RA is not the property owner of the remediation site identified in Section I of this application.
Property Owner's Name: _____
Title: _____
Company: _____
Street Address: _____
City: _____ State: _____ ZIP Code: _____ Phone: _____
I hereby certify that the Remediation Applicant has my permission to enroll the site identified in Section I of this application into the Illinois EPA Site Remediation Program. I certify that the Remediation Applicant and designated representatives have permission to enter upon the indicated premises for the purpose of conducting remedial investigations or activities.
Owner's Signature: _____ Date: _____
For multiple property owners, attach additional sheets containing all the information above along with a signed, dated certification for each.

V. Advance Partial Payment:

The Remediation Applicant shall select <u>one</u> of the following advance partial payment plans:
<input checked="" type="checkbox"/> Plan 1: A \$500 advance partial payment is included with this application. Please make the check payable to: "Treasurer, State of Illinois". Please include "For Deposit in the Hazardous Waste Fund" and the Remediation Applicant's FEIN or SSN on the check; or
<input type="checkbox"/> Plan 2: Request that the Illinois EPA determine the appropriate partial payment (i.e., approximately one-half of the total anticipated costs of the Illinois EPA, not to exceed \$5,000). A completed DRM-3 form ("Request for Assessment of Advance Partial Payment for Anticipated Services") must accompany this application so that the Illinois EPA may determine the appropriate advance partial payment specific to the services requested.
NOTE: Illinois EPA cannot refund payments without a legislative appropriation. Payment under Plan 1 accelerates the review process but increases the risk of forfeiting the payment if the applicant is ineligible. Payment under Plan 2 may result in a larger advance partial payment when a final determination is made on the application, but it reduces the risk of forfeiture.

L If this application contains plans and reports for review and evaluation by the Illinois EPA, a completed Form DRM-2 must also accompany this submittal.

The Illinois EPA is authorized to require this information under Section 415 ILCS 5/58-58.12 of the Environmental Protection Act and regulations promulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your application being rejected. This form has been approved by the Forms Management Center. All information submitted as part of this Application is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines.

Illinois Environmental Protection Agency
Bureau of Land
Remedial Project Management Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

FOR ILLINOIS EPA USE:

LOG NO. _____

Site Remediation Program Form (DRM-2)
(To Be Submitted with all Plans and Reports)

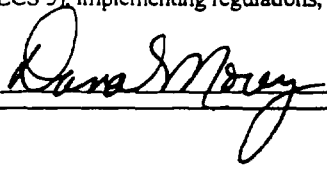
I. Site Identification:

Site Name:	<u>The Morey Corporation</u>		
Street Address:	<u>2659 Wisconsin Street</u>		
City:	<u>Downers Grove</u>	Illinois Inventory I. D. Number:	<u>0430305029</u>
IEMA Incident Number:	<u>NA</u>		

II. Remediation Applicant:

Applicant's Name:	<u>Dana Morey</u>	Company:	<u>MC Holdings, Inc.</u>
Street Address:	<u>100 Morey Drive</u>		
City:	<u>Woodridge</u>	State:	<u>IL</u>
ZIP Code:	<u>60517</u>	Phone:	<u>630.754.2124</u>

I hereby request that the Illinois EPA review and evaluate the attached project documents in accordance with the terms and conditions of the Environmental Protection Act (415 ILCS 5), implementing regulations, and the review and evaluation services agreement.

Remediation Applicant's Signature:  Date: 10-31-06

III. Contact Person:

Contact's Name:	<u>Tom Brecheisen</u>	Company:	<u>Pioneer Environmental, Inc.</u>
Street Address:	<u>1000 N. Halsted #202</u>		
City:	<u>Chicago</u>	State:	<u>IL</u>
ZIP Code:	<u>60622</u>	Phone:	<u>312.587.1021</u>

IV. Review & Evaluation Licensed Professional Engineer ("RELPE"), if applicable:

RELPE's Name:	_____			Company:	_____
Street Address:	_____				
City:	_____	State:	_____	ZIP Code:	_____
Phone:	_____				
Registration Number:	_____		License Expiration Date:	_____	

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

V. Project Documents Being Submitted:

Document Title: FSI / RAC Report	Date of Preparation of Plan or Report: 11-1-00
Prepared by: Pioneer Environmental, Inc.	Prepared for: MC Holdings, Inc.
Type of Document Submitted:	
<input type="checkbox"/> Site Investigation Report - Comprehensive	<input type="checkbox"/> Sampling Plan
<input checked="" type="checkbox"/> Site Investigation Report - Focused	<input type="checkbox"/> Health and Safety Plan
<input checked="" type="checkbox"/> Remediation Objectives Report-Tier 1 or 2	<input type="checkbox"/> Community Relations Plan
<input checked="" type="checkbox"/> Remediation Objectives Report-Tier 3	<input type="checkbox"/> Risk Assessment
<input type="checkbox"/> Remedial Action Plan	<input checked="" type="checkbox"/> Contaminant Fate & Transport Modeling
<input checked="" type="checkbox"/> Remedial Action Completion Report	<input type="checkbox"/> Environmental Remediation Tax Credit - Budget Plan Review
	Other: _____

Document Title: _____	Date of Preparation of Plan or Report: _____
Prepared by: _____	Prepared for: _____
Type of Document Submitted:	
<input type="checkbox"/> Site Investigation Report - Comprehensive	<input type="checkbox"/> Sampling Plan
<input type="checkbox"/> Site Investigation Report - Focused	<input type="checkbox"/> Health and Safety Plan
<input type="checkbox"/> Remediation Objectives Report-Tier 1 or 2	<input type="checkbox"/> Community Relations Plan
<input type="checkbox"/> Remediation Objectives Report-Tier 3	<input type="checkbox"/> Risk Assessment
<input type="checkbox"/> Remedial Action Plan	<input type="checkbox"/> Contaminant Fate & Transport Modeling
<input type="checkbox"/> Remedial Action Completion Report	<input type="checkbox"/> Environmental Remediation Tax Credit - Budget Plan Review
	Other: _____

Document Title: _____	Date of Preparation of Plan or Report: _____
Prepared by: _____	Prepared for: _____
Type of Document Submitted:	
<input type="checkbox"/> Site Investigation Report - Comprehensive	<input type="checkbox"/> Sampling Plan
<input type="checkbox"/> Site Investigation Report - Focused	<input type="checkbox"/> Health and Safety Plan
<input type="checkbox"/> Remediation Objectives Report-Tier 1 or 2	<input type="checkbox"/> Community Relations Plan
<input type="checkbox"/> Remediation Objectives Report-Tier 3	<input type="checkbox"/> Risk Assessment
<input type="checkbox"/> Remedial Action Plan	<input type="checkbox"/> Contaminant Fate & Transport Modeling
<input type="checkbox"/> Remedial Action Completion Report	<input type="checkbox"/> Environmental Remediation Tax Credit - Budget Plan Review
	Other: _____

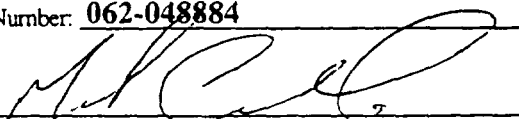
VI. Professional Engineer's Seal or Stamp:

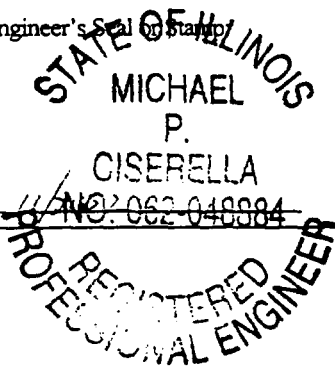
I attest that all site investigations or remedial activities that are the subject of this plan(s) or report(s) were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by me, and to the best of my knowledge and belief, the work described in the plan and report has been designed or completed in accordance with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code 740, and generally accepted engineering practices, and the information presented is accurate and complete.

Engineer Name: **Mike Ciserella**

Company: **Pioneer** Phone: **312.587.1021**

Registration Number: **062-048884**

Signature: 

Professional Engineer's Seal or Stamp: 

License Expiration Date: **11/1/01**

Subject Property Legal Description; PIN: 02-12-303-008

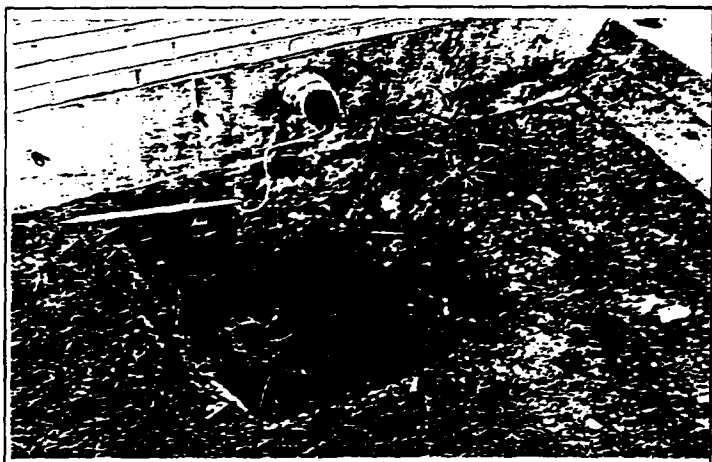
Lots 32 and 33 in Ellsworth Park unit number 5, being a subdivision in the southwest 1/4 of Section 12, Township 38 North, Range 10 East of the third principal meridian, according to the plat thereof recorded January 10, 1962 as document number R62-993 in DuPage County, Illinois.

Remediation Site Legal Description

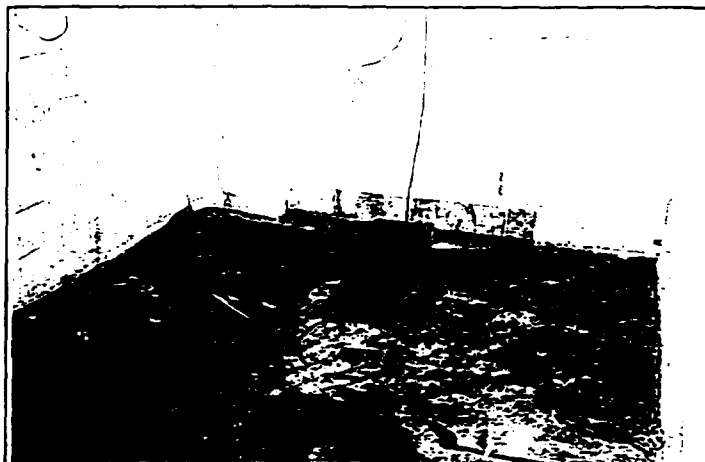
Beginning at the southeast property corner of Lot 32, extending north along eastern property line for 120 feet, then due west 100 feet, then south 120 feet to the southern property line and then east 100 feet to the point of beginning.

APPENDIX B

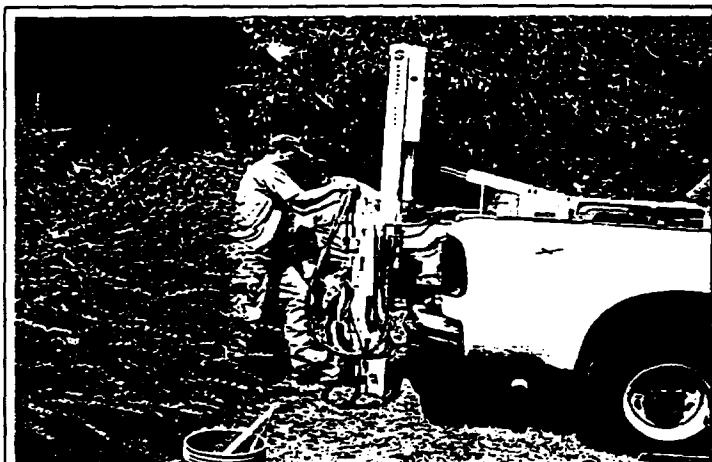
Photographic Log



View of floor drain outlet



View of floor drain from interior of former waste storage room



Advancement of boring B-9



View of warehouse interior

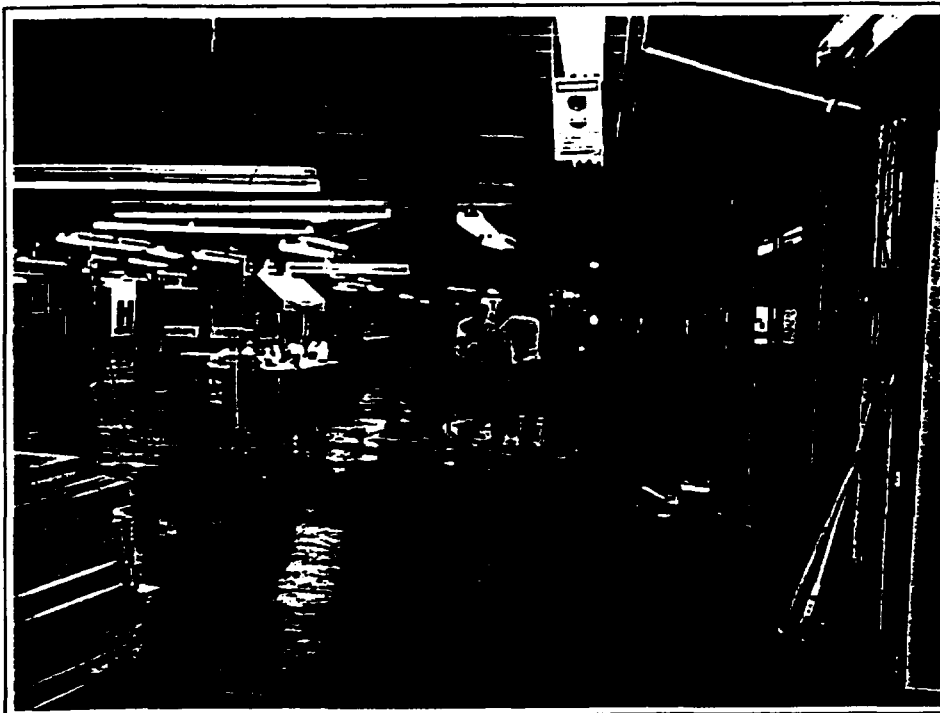
PIONEER
ENVIRONMENTAL, INC.

The Morey Corporation
2659 Wisconsin Avenue
Downers Grove, IL

PHOTOGRAPHIC LOG

Project Number: 00618

October 2000



Advancement of boring B-13



Advancement of boring B-14

PIONEER
ENVIRONMENTAL, INC.

The Morey Corporation
2659 Wisconsin Avenue
Downers Grove, IL

PHOTOGRAPHIC LOG

Project Number: 00618

October, 2000

Boring Log

Boring No.: B-3

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/28/00

Date End: 8/28/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	0.7			CL		Brown SILTY CLAY with some clayey silt and some gravel and sand Firm, Loose, Moist	No Odor No Visual
100%	0.6		3				
			6	CL		Brown CLAYEY SILT with some silty clay and some gravel and sand Stiff, Loose, Moist	
100%	0.5		9				
100%	0.4		12	CL		Gray SILTY CLAY with trace sand and gravel Stiff, Moist	
			15				
			18				
						Boring terminated at 12 feet	

Completion Notes:
Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Geoprobe MacroCore

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen


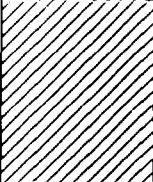
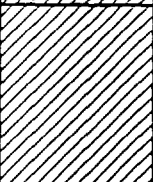
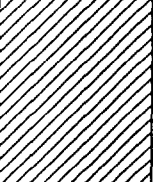
LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1

				Boring Log			Boring No.: B-4	
							Date Begin: 8/28/00	
				Site: The Morey Corporation 2659 Wisconsin Street Downers Grove, Illinois			Date End: 8/28/00	
Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes	
100%	0.7		3	CL		Brown SILTY CLAY with some clayey silt and some gravel and sand Firm, Loose, Moist	No Odor No Visual	
100%	0.6		6	CL		Brown CLAYEY SILT with some silty clay and some gravel and sand Stiff, Loose, Moist		
100%	0.5		9	CL		Gray SILTY CLAY with trace sand and gravel Stiff, Moist		
100%	0.8		12			Boring terminated at 12 feet		
			15					
			18					
Completion Notes: Hatched interval denotes sample submitted for laboratory analysis Sampling method: Geoprobe MacroCore						Drill Rig: SIMCO Earthprobe 200		
						Driller: Predrag Vrhovac		
						Geologist: Tom Brecheisen		
						LUST Incident No: NA		
Water Depth While Drilling: NA				Water Depth After Drilling: NA		Project Number: 00618	Page 1	



Boring Log

Boring No.: B-5

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/28/00

Date End: 8/28/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	3.0		3	CL		Brown SILTY CLAY Firm, Moist	No Odor No Visual
100%	0.8		6	CL		Gray SILTY CLAY with trace gravel and sand Firm, Moist	
100%	0.9		9	CL		Gray SILTY CLAY with trace sand and gravel Soft, Moist	
100%	1.4		12			Boring terminated at 12 feet	
			15				
			18				

Completion Notes:

Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Geoprobe MacroCore

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1

Boring Log

Boring No.: B-6

Site: The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/28/00

Date End: 8/28/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	16.6			CL		Brown SILTY CLAY with trace gravel and sand Firm, Moist	No Odor No Visual
100%	23.9		3	CL		Brown to gray SILTY CLAY with trace gravel and sand Firm to stiff, Moist	
100%	3.9		6	CL		Gray SILTY CLAY Firm, Moist	
100%	2.0		9	CL		Gray SILTY CLAY Soft, Moist	
			12			Boring terminated at 12 feet	
			15				
			18				

Completion Notes:
Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Geoprobe MacroCore

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1

Boring Log

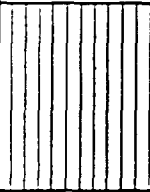
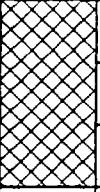
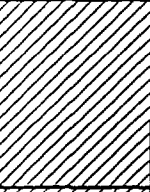
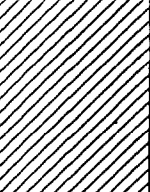
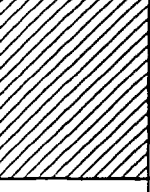
Boring No.: B-7

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/28/00

Date End: 8/28/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	0.7			ML		Brown CLAYEY SILT with some gravel and sand Loose, Moist	No Odor No Visual
100%	0.2		3	CL		Brown SILTY CLAY with trace gravel and sand Stiff, Moist	
100%	0.1		6			Gray SILTY CLAY Firm, Moist	
100%	0.1		9	CL			
100%			12			Boring terminated at 12 feet	
			15				
			18				

Completion Notes:
Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Geoprobe MacroCore

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1



Boring Log

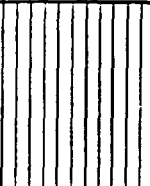
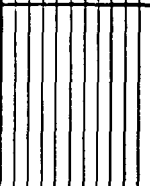
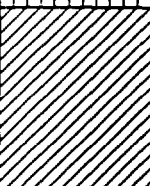
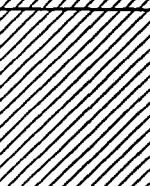
Boring No.: B-8

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/28/00

Date End: 8/28/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	0.0			ML		Brown CLAYEY SILT with some gravel and sand Loose, Moist	No Odor No Visual
100%	0.2		3	ML		Brown CLAYEY SILT with some gravel and sand Stiff, Moist	
100%	0.0		6	CL		Brown SILTY CLAY with some gravel and sand Firm to stiff, Moist	
100%	0.0		9	CL		Gray SILTY CLAY Stiff, Moist	
			12			Boring terminated at 12 feet	
			15				
			18				

Completion Notes:

Hatched interval denotes sample submitted for laboratory analysis

Sampling method: Geoprobe MacroCore

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1



Boring Log

Boring No.: B-9

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/28/00

Date End: 8/28/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	0.0		3	ML		Brown CLAYEY SILT with some silty clay and some gravel and sand Loose, Stiff, Moist	No Odor No Visual
100%	0.0		6				
100%	0.0		9				
100%	0.0		12	CL		Gray SILTY CLAY with some gravel and sand Soft, Moist	
			15			Boring terminated at 12 feet	
			18				
Completion Notes: Hatched interval denotes sample submitted for laboratory analysis Sampling method: Geoprobe MacroCore						Drill Rig:	SIMCO Earthprobe 200
						Driller:	Predrag Vrhovac
						Geologist:	Tom Brecheisen
						LUST Incident No:	NA
Water Depth While Drilling: NA				Water Depth After Drilling: NA		Project Number: 00618	Page 1



Boring Log

Boring No.: B-10

Site: The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/29/00

Date End: 8/29/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	3.9			CL		Brown SILTY CLAY with some clayey silt and some gravel and sand Loose, Stiff, Moist	No Odor No Visual
100%	12.3		3	CL		Brown SILTY CLAY with some gravel and sand Firm, Moist	
100%	27.9		6				
75%	6.7					Dark brown SILTY CLAY mottled gray Firm to stiff, Moist	
100%	5.0		9	CL			
100%	8.4		12			Boring terminated at 12 feet	
			15				
			18				

Completion Notes:
Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Hand Auger

Drill Rig: NA

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA Water Depth After Drilling: NA

Project Number: 00618

Page 1



Boring Log

Boring No.: B-11

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/29/00

Date End: 8/29/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
75%	0.8			CL		Brown SILTY CLAY with some gravel and sand Firm, Moist	No Odor No Visual
100%	0.9		3	CL		Brown SILTY CLAY with some gravel and sand Stiff, Moist	
100%	1.2		6	CL		Brown SILTY CLAY with trace gravel and sand Firm to stiff, Moist	
100%	0.7			CL		Boring terminated at 8 feet	
			9				
			12				
			15				
			18				

Completion Notes:

Hatched interval denotes sample submitted for laboratory analysis

Sampling method: Hand Auger

Drill Rig: NA

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1



Boring Log

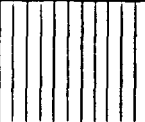

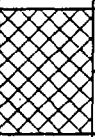
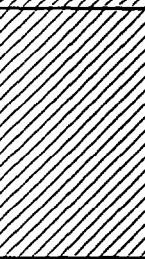
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Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/29/00

Date End: 8/29/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
33%	0.7			ML		Brown SILTY SAND with some gravel, coarse sand and silty clay Firm, Moist	No Odor No Visual
50%	1.3		3	CL		Dark brown SILTY CLAY mottled gray Firm, Moist	
50%	2.0		6	CL		Gray SILTY CLAY Firm, Moist	
50%	2.2					Boring terminated at 8 feet	
			9				
			12				
			15				
			18				

Completion Notes:
Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Hand Auger

Drill Rig: NA

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: ~2'

Water Depth After Drilling: NA

Project Number: 00618

Page 1

Boring Log

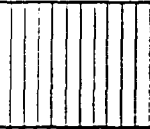
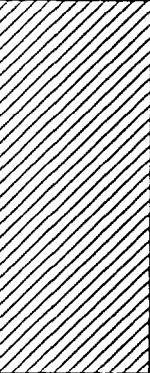
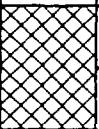
Boring No.: B-13

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/29/00

Date End: 8/29/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	0.0			ML		Brown CLAYEY SILT with some gravel and sand and silty clay Loose, Stiff, Moist	No Odor No Visual
100%	0.3		3	CL		Brown SILTY CLAY Firm to stiff, Moist	
100%	0.9		6				
50%	0.5						
			9			Boring terminated at 8 feet	
			12				
			15				
			18				

Completion Notes:

Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Hand Auger

Drill Rig: NA

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1



Boring Log

Boring No.: B-14

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/29/00

Date End: 8/29/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
50%	0.2		3	CL		Brown SILTY CLAY with trace gravel and sand Firm, Moist	No Odor No Visual
100%	0.0		6	CL		Gray SILTY CLAY Firm, Moist	
100%	0.8		9			Boring terminated at 9 feet	
			12				
			15				
			18				

Completion Notes:

Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Geoprobe Macro-Core

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

Project Number: 00618

Page 1



Boring Log

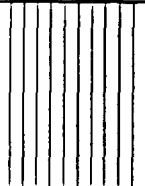
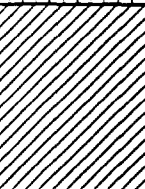
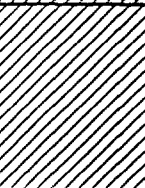
Boring No.: B-15

Site:

The Morey Corporation
2659 Wisconsin Street
Downers Grove, Illinois

Date Begin: 8/29/00

Date End: 8/29/00

Sample Recovery	FID (ppm)	Sample	Depth Feet	Soil Class	Lithology	Description	Notes
100%	0.5			ML		Brown CLAYEY SILT with some silty clay Stiff, Loose, Moist	No Odor No Visual
100%	0.7		3	CL		Brown SILTY CLAY with some clayey silt Loose, Firm, Moist	
100%	0.0		6	CL		Brown SILTY CLAY mottled gray with some clayey silt Stiff, Loose, Moist	
			9			Boring terminated at 9 feet	
			12				
			15				
			18				

Completion Notes:

Hatched interval denotes sample submitted for laboratory analysis
Sampling method: Geoprobe MacroCore

Drill Rig: SIMCO Earthprobe 200

Driller: Predrag Vrhovac

Geologist: Tom Brecheisen

LUST Incident No: NA

Water Depth While Drilling: NA

Water Depth After Drilling: NA

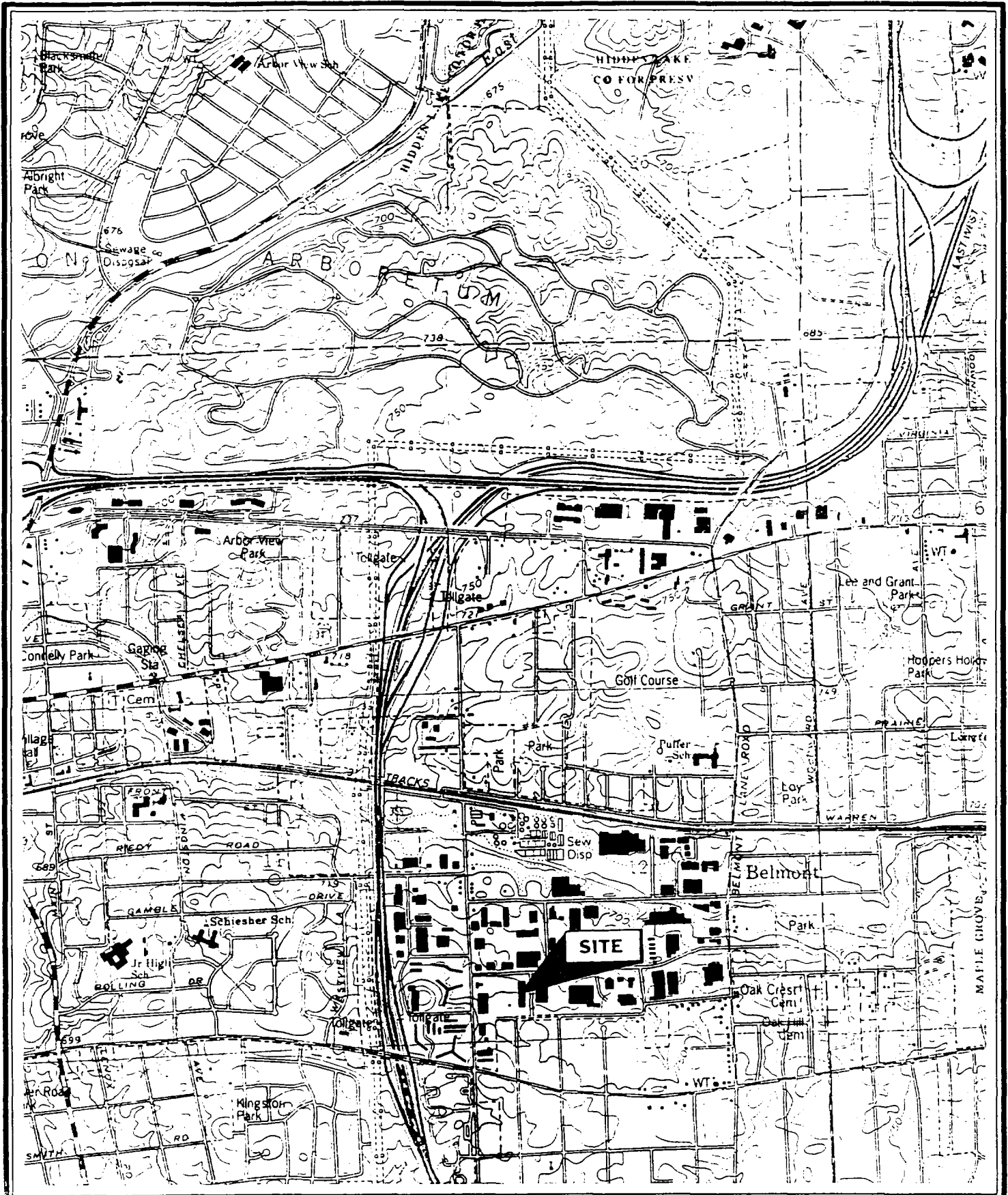
Project Number: 00618

Page

1

APPENDIX D

USGS / IGS Maps

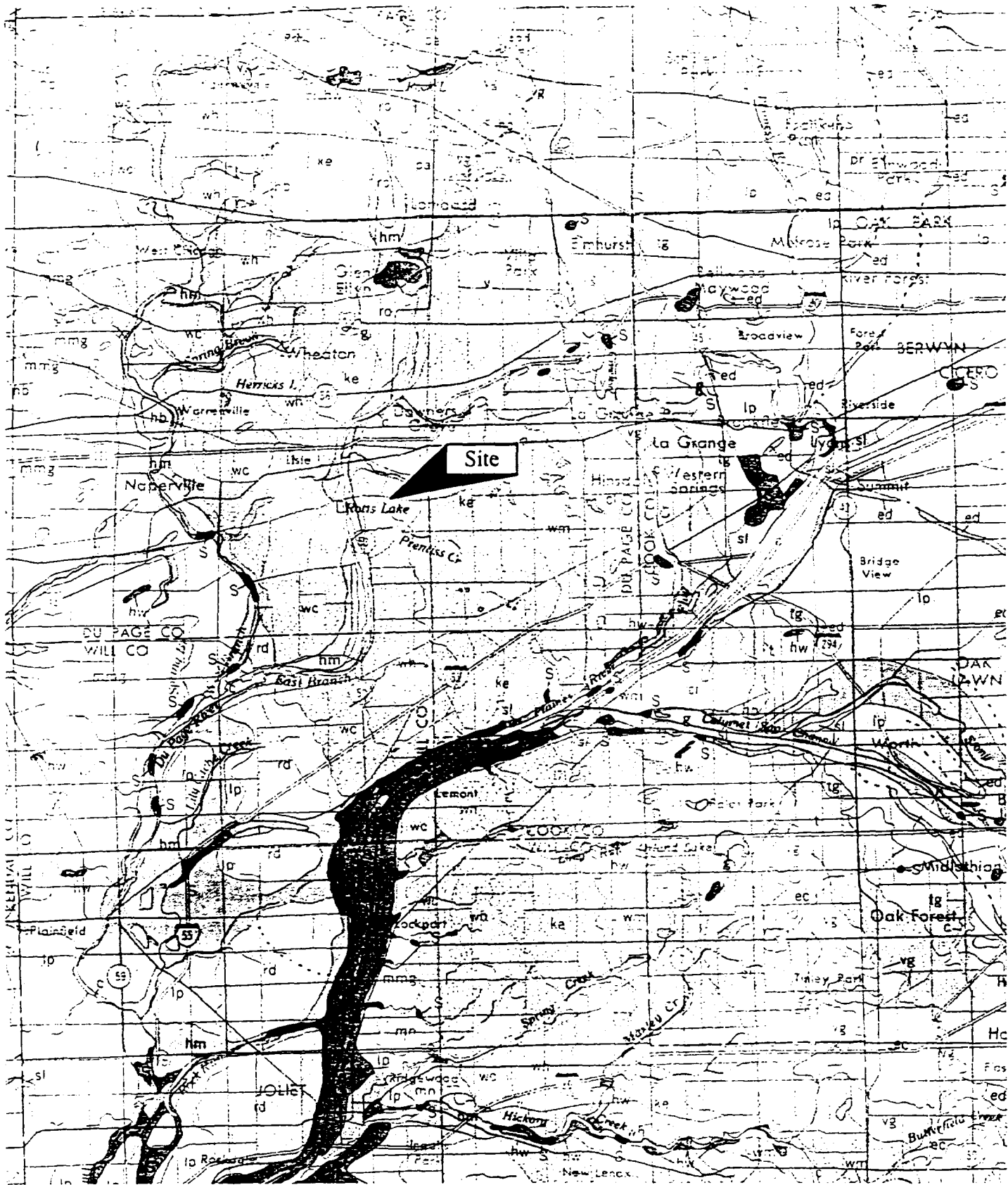


PIONEER
ENVIRONMENTAL, INC.

USGS TOPOGRAPHIC MAP
WHEATON, IL QUADRANGLE
SUBJECT SITE: SECTION 12, T 38N, R 10E

SCALE: 1:24,000

DATE: 1993



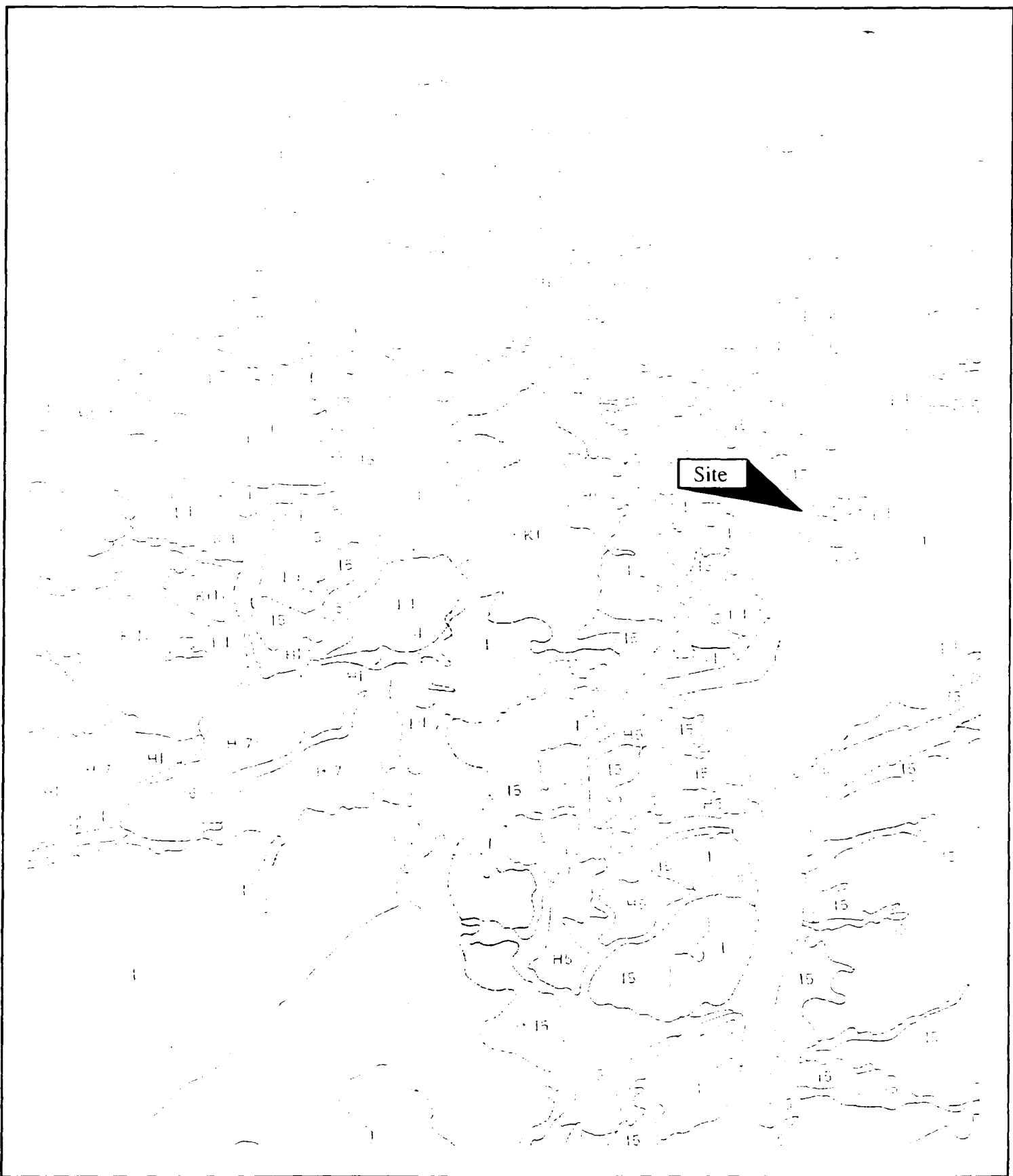
PIONEER
ENVIRONMENTAL, INC.

The Morey Corporation
2659 Wisconsin Avenue
Downer's Grove, IL
T38N. R10E. SEC.12

KEY: ke = Keeneyville Moraine
DESCRIPTION: Wadsworth Member of Wadron Formation.
Mostly gray clayey & silty clayey till, low pebble, cobble, &
boulder content with local silt lenses

ISGS MAP
Surficial Geology of the Chicago Region
Scale 1:250,000
1970

Project Number:00618



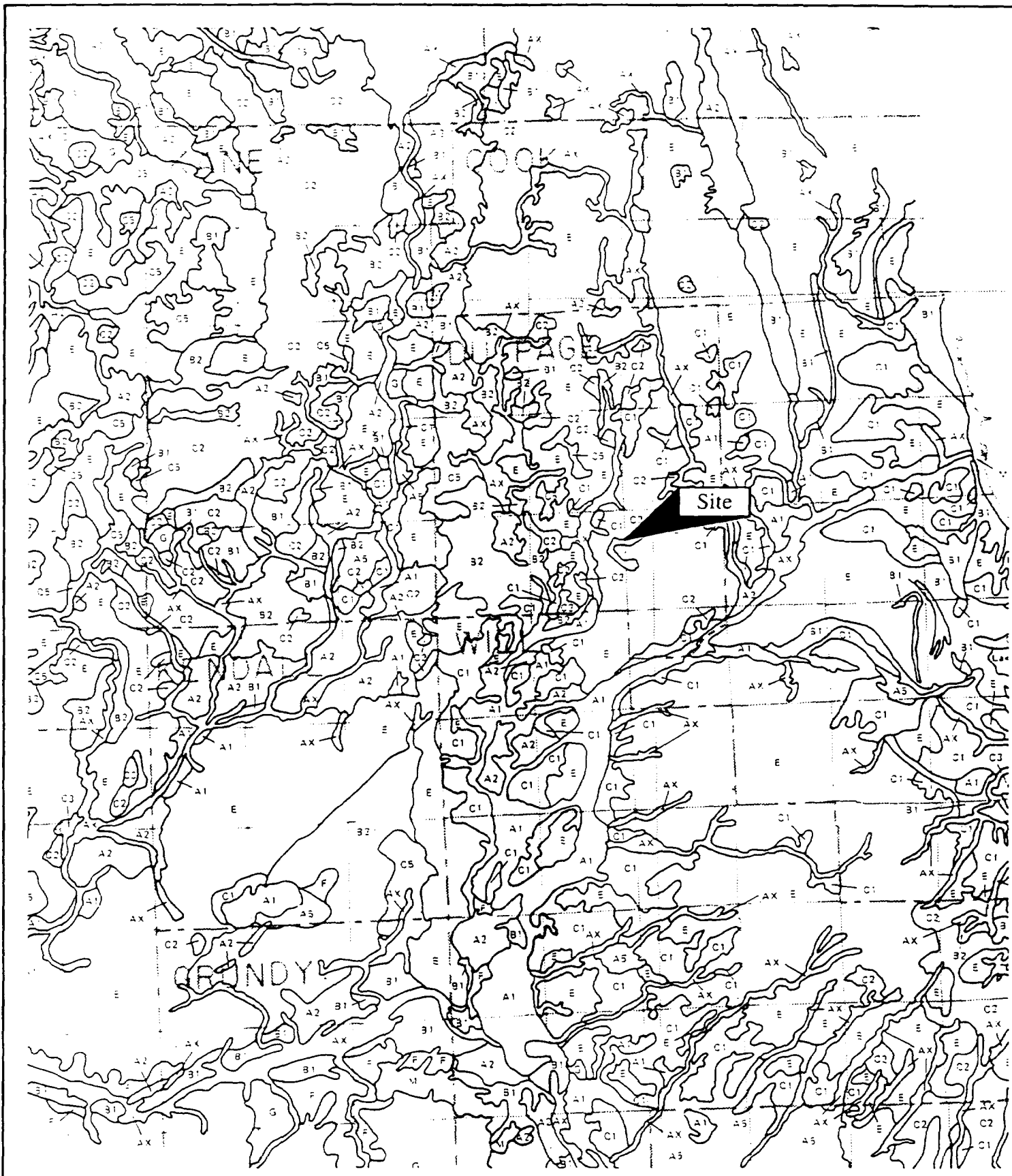
PIONEER
ENVIRONMENTAL, INC.

The Morey Corporation
2659 Wisconsin Avenue
Downers Grove, Illinois
T38N, R10E, Sec 12

DESCRIPTION: Wedron Formation: silty and clayey
diamictions >6m (19.7') in thickness with sand and gravel
deposits between 6 and 15 feet

ISGS MAP
Stack-Unit Map of Northern Illinois
Scale: 1:250,000
1987

Project Number: 00618



PIONEER
ENVIRONMENTAL, INC.

The Morey Corporation
2659 Wisconsin Avenue
Downers Grove, IL
T38N. R10E. SEC. 12

C2: Sand and gravel within 20-50 feet of surface underlain by impermeable till
E: Uniform, relatively impermeable silty or clayey fill: > least 50' thick no evidence of interbedded sand

ISGS Circular 532 Map
Potential for Contamination of Shallow Aquifers
Scale: 1:500,000
1984

Project Number: 00618

APPENDIX E

Laboratory Analytical Results

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCONSIN
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030692A					Sample Type	Soil		
Sample ID	B-1 (3'-6')					Sample Date	8/28/00		

Inorganic

General

Solids Percent	82.6	%			1	8/30/00	5021	SAD	1
----------------	------	---	--	--	---	---------	------	-----	---

Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/2/00	8260B	CJR	1
Benzene	< 10	ug/kg	6.8	23	1	9/2/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/2/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/2/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/2/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/2/00	8260B	CJR	1
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/2/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/2/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/2/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/2/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/2/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/2/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/2/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/2/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/2/00	8260B	CJR	1
cis-1,2-Dichloroethene	2600	ug/kg	9.3	31	1	9/2/00	8260B	CJR	1
trans-1,2-Dichloroethene	35	ug/kg	8.8	29	1	9/2/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/2/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/2/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/2/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/2/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/2/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/2/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/2/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/2/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/2/00	8260B	CJR	3.7
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/2/00	8260B	CJR	1
Tetrachloroethene	110000	ug/kg	330	1100	50	9/5/00	8260B	CJR	1
Toluene	11 "J"	ug/kg	7	23	1	9/2/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/2/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/2/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692A						Sample Type Soil			
Sample ID B-1 (3'-6')						Sample Date 8/28/00			
Trichloroethene	8000	ug/kg	7.7	26	1	9/2/00	8260B	CJR	1
Vinyl Chloride	16 "J"	ug/kg	10	34	1	9/2/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/2/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/2/00	8260B	CJR	1
Lab Code 5030692B						Sample Type Soil			
Sample ID B-1 (9'-12')						Sample Date 8/28/00			

Inorganic

General

Solids Percent	87.9	%			1	8/30/00	5021	SAD	1
----------------	------	---	--	--	---	---------	------	-----	---

Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	2
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	3 7
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	1000	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	22 "J"	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692B Sample ID B-1 (9'-12')						Sample Type Soil Sample Date 8/28/00			
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/5/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
Lab Code 5030692C Sample ID B-2 (6-9')						Sample Type Soil Sample Date 8/28/00			

Inorganic

General

Solids Percent	85.3	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	2
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	3 7
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692C						Sample Type	Soil		
Sample ID B-2 (6-9')						Sample Date	8/28/00		
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	160	ug/kg	6.6	22	1	9/5/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
Lab Code 5030692D						Sample Type	Soil		
Sample ID B-3 (3-6')						Sample Date	8/28/00		

Inorganic

General

Solids Percent	87.4	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	2
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692D Sample ID B-3 (3-6')						Sample Type Soil Sample Date 8/28/00			
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	37
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/5/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1

Lab Code 5030692F Sample ID B-5 (6-9')						Sample Type Soil Sample Date 8/28/00			
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Inorganic

General

Solids Percent	84.1	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	2
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692F						Sample Type Soil			
Sample ID B-5 (6-9')						Sample Date 8/28/00			
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	3 7
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	20 "J"	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/5/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCONSIN
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692G						Sample Type Soil			
Sample ID B-6 (3-6')						Sample Date 8/28/00			

Inorganic

General

Solids Percent	84.5	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	2
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	3 7
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	18 "J"	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	3300	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	91	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	1600	ug/kg	6.6	22	1	9/5/00	8260B	CJR	1
Toluene	14 "J"	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692G						Sample Type	Soil		
Sample ID B-6 (3-6')						Sample Date	8/28/00		
Trichloroethene	1000	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	46	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
Lab Code 5030692H						Sample Type	Soil		
Sample ID B-6 (9-12')						Sample Date	8/28/00		

Inorganic

General

Solids Percent	88.7	%			1	9/12/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
Benzene	< 10	ug/kg	6.8	23	1	9/12/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/12/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	4
Bromomethane	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/12/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/12/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/12/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/12/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/12/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/12/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/12/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/12/00	8260B	CJR	1
cis-1,2-Dichloroethene	30 "J"	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/12/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/12/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/12/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/12/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/12/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/12/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	3
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/12/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692H						Sample Type	Soil		
Sample ID B-6 (9-12')						Sample Date	8/28/00		
Methylene chloride	< 10	ug/kg	9	30	1	9/12/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/12/00	8260B	CJR	3 7
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/12/00	8260B	CJR	1
Tetrachloroethene	55	ug/kg	6.6	22	1	9/12/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/12/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/12/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
Trichloroethene	10 "J"	ug/kg	7.7	26	1	9/12/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/12/00	8260B	CJR	1
Lab Code 5030692I						Sample Type	Soil		
Sample ID B-7 (3-6')						Sample Date	8/28/00		

Inorganic

General

Solids Percent	85.5	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	2
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	3 7
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692I						Sample Type Soil			
Sample ID B-7 (3-6')						Sample Date 8/28/00			
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/5/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1

Lab Code 5030692J	Sample Type Soil
Sample ID B-7 (3-6')	Sample Date 8/28/00

Inorganic

General

Total Organic Carbon 4650 mg/kg 182 607 9/6/00 9060 REL 1 61

Physicals

Soil PH 7.2 su 1 9/13/00 9045 CAH 1

Lab Code 5030692M	Sample Type Soil
Sample ID B-10 (4-6')	Sample Date 8/29/00

Inorganic

General

Solids Percent 86.3 % 1 8/30/00 5021 SAD 1

Organic

VOC's

Acetone < 10 ug/kg 10 34 1 9/5/00 8260B CJR 2

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692M						Sample Type Soil			
Sample ID B-10 (4-6')						Sample Date 8/29/00			
Benzene	< 10	ug/kg	6.8	23	1	9/5/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/5/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/5/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/5/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/5/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	3 7
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/5/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/5/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,2-Dichloroethene	14 "J"	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/5/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/5/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/5/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/5/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/5/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/5/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/5/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/5/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/5/00	8260B	CJR	1
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/5/00	8260B	CJR	1
Tetrachloroethene	59000	ug/kg	330	1100	1	9/6/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/5/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
Trichloroethene	45	ug/kg	7.7	26	1	9/5/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/5/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/5/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/5/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030692N					Sample Type	Soil		
Sample ID	B-10 (10-12')					Sample Date	8/29/00		

Inorganic

General

Solids Percent	86.8	%			1	9/12/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
Benzene	< 10	ug/kg	6.8	23	1	9/12/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/12/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	4
Bromomethane	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/12/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/12/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/12/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/12/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/12/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/12/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/12/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/12/00	8260B	CJR	1
cis-1,2-Dichloroethene	49	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/12/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/12/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/12/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/12/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/12/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/12/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	3
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/12/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/12/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/12/00	8260B	CJR	3 7
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/12/00	8260B	CJR	1
Tetrachloroethene	5800	ug/kg	6.6	22	1	9/12/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/12/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/12/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692N						Sample Type Soil			
Sample ID B-10 (10-12')						Sample Date 8/29/00			
Trichloroethene	19 "J"	ug/kg	7.7	26	1	9/12/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
o-Xylene	15 "J"	ug/kg	7	23	1	9/12/00	8260B	CJR	1
Lab Code 5030692O						Sample Type Soil			
Sample ID B-11 (4-6')						Sample Date 8/29/00			

Inorganic

General

Solids Percent	85.0	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
Benzene	< 10	ug/kg	6.8	23	1	9/6/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/6/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/6/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/6/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/6/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/6/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/6/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/6/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/6/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/6/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/6/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/6/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/6/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/6/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/6/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/6/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/6/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/6/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/6/00	8260B	CJR	4
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/6/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/6/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 50306920						Sample Type Soil			
Sample ID B-11 (4-6')						Sample Date 8/29/00			
Methylene chloride	< 10	ug/kg	9	30	1	9/6/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/6/00	8260B	CJR	4
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/6/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/6/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/6/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/6/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/6/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/6/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/6/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/6/00	8260B	CJR	1

Lab Code 5030692P						Sample Type Soil			
Sample ID B-12 (4-6')						Sample Date 8/29/00			

Inorganic

General

Solids Percent	87.9	%			1	8/30/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
Benzene	< 10	ug/kg	6.8	23	1	9/6/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/6/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/6/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/6/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/6/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/6/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/6/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/6/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/6/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/6/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/6/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/6/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/6/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/6/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692P Sample ID B-12 (4-6')						Sample Type Soil Sample Date 8/29/00			
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/6/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/6/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/6/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/6/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/6/00	8260B	CJR	4
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/6/00	8260B	CJR	1
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/6/00	8260B	CJR	1
Methylene chloride	40	ug/kg	9	30	1	9/6/00	8260B	CJR	1 41
Styrene	< 10	ug/kg	3.8	13	1	9/6/00	8260B	CJR	4
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/6/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/6/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/6/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/6/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/6/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/6/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/6/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/6/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/6/00	8260B	CJR	1
Lab Code 5030692Q Sample ID B-13 (6-8')						Sample Type Soil Sample Date 8/29/00			

Inorganic

General

Solids Percent	84.7	%			1	9/12/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
Benzene	< 10	ug/kg	6.8	23	1	9/12/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/12/00	8260B	CJR	1
Bromoform	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	4
Bromomethane	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	1
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/12/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/12/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/12/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
Chloroform	< 10	ug/kg	4.1	14	1	9/12/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692Q						Sample Type Soil			
Sample ID B-13 (6-8')						Sample Date 8/29/00			
Chloromethane	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/12/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/12/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/12/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/12/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/12/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/12/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/12/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/12/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/12/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/12/00	8260B	CJR	1
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/12/00	8260B	CJR	3
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/12/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/12/00	8260B	CJR	1
Styrene	< 10	ug/kg	3.8	13	1	9/12/00	8260B	CJR	37
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/12/00	8260B	CJR	1
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/12/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/12/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/12/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/12/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/12/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/12/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/12/00	8260B	CJR	1

Lab Code 5030692T	Sample Type Soil
Sample ID B-14 (6-9')	Sample Date 8/29/00

Inorganic

General

Solids Percent	85.0	%	1	9/19/00	5021	SAD	1
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Organic

VOC's

Acetone	< 10	ug/kg	10	34	1	9/19/00	8260B	CJR	24
Benzene	< 10	ug/kg	6.8	23	1	9/19/00	8260B	CJR	1
Bromodichloromethane	< 10	ug/kg	5.8	19	1	9/19/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP
Invoice # E30933

Report Date 29-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030933A					Sample Type	Soil		
Sample ID	B-14 (3-6')					Sample Date	8/29/00		

Inorganic

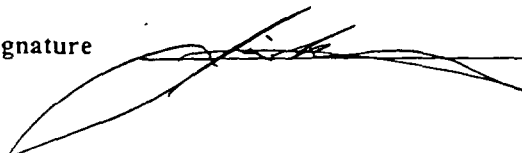
General

Total Organic Carbon	10800	mg/kg	462	1540		9/28/00	9060	REL	1 61
LOD Limit of Detection			"J" Flag: Analyte detected between LOD and LOQ				LOQ Limit of Quantitation		

Code *Comment*

1 All laboratory QC requirements were met for this sample.
61 Analysis performed by sub contract lab.

Authorized Signature



U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030692T						Sample Type	Soil		
Sample ID B-14 (6-9')						Sample Date	8/29/00		
Bromoform	< 10	ug/kg	10	34	1	9/19/00	8260B	CJR	1
Bromomethane	< 10	ug/kg	10	35	1	9/19/00	8260B	CJR	3 4 7
Carbon Disulfide	< 10	ug/kg	5.7	19	1	9/19/00	8260B	CJR	3 4 7
Carbon Tetrachloride	< 10	ug/kg	10	33	1	9/19/00	8260B	CJR	1
Chlorobenzene	< 10	ug/kg	5.6	19	1	9/19/00	8260B	CJR	1
Chloroethane	< 10	ug/kg	10	34	1	9/19/00	8260B	CJR	3 4 7
Chloroform	< 10	ug/kg	4.1	14	1	9/19/00	8260B	CJR	1
Chloromethane	< 10	ug/kg	10	35	1	9/19/00	8260B	CJR	1
Dibromochloromethane	< 10	ug/kg	9.1	30	1	9/19/00	8260B	CJR	1
1,2-Dichloroethane	< 10	ug/kg	3.8	13	1	9/19/00	8260B	CJR	1
1,1-Dichloroethane	< 10	ug/kg	8.3	28	1	9/19/00	8260B	CJR	1
1,1-Dichloroethene	< 10	ug/kg	8.7	29	1	9/19/00	8260B	CJR	1
cis-1,2-Dichloroethene	< 10	ug/kg	9.3	31	1	9/19/00	8260B	CJR	1
trans-1,2-Dichloroethene	< 10	ug/kg	8.8	29	1	9/19/00	8260B	CJR	1
1,2-Dichloropropane	< 10	ug/kg	8.8	29	1	9/19/00	8260B	CJR	1
trans-1,3-Dichloropropene	< 10	ug/kg	8.7	29	1	9/19/00	8260B	CJR	1
cis-1,3-Dichloropropene	< 10	ug/kg	7.6	25	1	9/19/00	8260B	CJR	1
Ethylbenzene	< 10	ug/kg	4.4	15	1	9/19/00	8260B	CJR	1
2-Hexanone	< 10	ug/kg	8.2	27	1	9/19/00	8260B	CJR	3 4 7
Methyl ethyl ketone	< 10	ug/kg	10	35	1	9/19/00	8260B	CJR	2 3 4
Methyl isobutyl ketone	< 10	ug/kg	8.6	29	1	9/19/00	8260B	CJR	1
Methylene chloride	< 10	ug/kg	9	30	1	9/19/00	8260B	CJR	4
Styrene	< 10	ug/kg	3.8	13	1	9/19/00	8260B	CJR	3 4 7
1,1,2,2-Tetrachloroethane	< 10	ug/kg	5.2	17	1	9/19/00	8260B	CJR	4
Tetrachloroethene	< 10	ug/kg	6.6	22	1	9/19/00	8260B	CJR	1
Toluene	< 10	ug/kg	7	23	1	9/19/00	8260B	CJR	1
1,1,1-Trichloroethane	< 10	ug/kg	10	33	1	9/19/00	8260B	CJR	1
1,1,2-Trichloroethane	< 10	ug/kg	9.3	31	1	9/19/00	8260B	CJR	1
Trichloroethene	< 10	ug/kg	7.7	26	1	9/19/00	8260B	CJR	1
Vinyl Chloride	< 10	ug/kg	10	34	1	9/19/00	8260B	CJR	1
m&p-Xylene	< 20	ug/kg	9.3	31	1	9/19/00	8260B	CJR	1
o-Xylene	< 10	ug/kg	7	23	1	9/19/00	8260B	CJR	1

U.S. Analytical Lab

TOM BRECHEISEN
PIONEER ENVIRONMENTAL
1000 NORTH HALSTED
CHICAGO IL 60622

Project # 00618
Project Name MOREY CORP / 2659 WISCON
Invoice # E30692

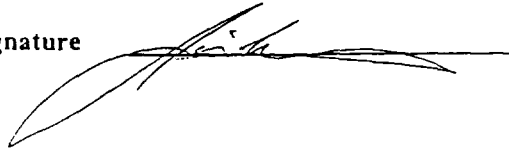
Report Date 21-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
LOD Limit of Detection			"J" Flag: Analyte detected between LOD and LOQ				LOQ Limit of Quantitation		

Code	Comment
------	---------

- | | |
|----|---|
| 1 | All laboratory QC requirements were met for this sample. |
| 2 | The duplicate RPD failed to meet acceptable QC limits. |
| 3 | The spike recovery failed to meet acceptable QC limits. |
| 4 | The check standard failed to meet acceptable QC limits. |
| 7 | The LCS spike recovery failed to meet acceptable QC limits. |
| 41 | Result confirmed by repeat analysis. |
| 61 | Analysis performed by sub contract lab. |

Authorized Signature



CHAIN OF CUSTODY RECORD



Analytical Lab

1090 Kennedy Ave. • Kinross, WI 54136
(920) 735-8295 • FAX 920-739-1738 • 800-490-4902
LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # **20990**

Lab I.D. # **5030692**

Account No.: Quote No.:

Page 1 of

Project #: **00618**

Sample Integrity: To be completed by receiving lab

Method of Shipment: **2025**

Temp of Temp: Blank 4 °C On Ice: X

Sampler: (signature) Thomas A Brecheisen

Copier seal intact upon receipt: X Yes No

Labcoded By: 11/17/00

Project (Name / Location): Moray Corporation / 2659 Wisconsin

Analysis Requested

Reports To: Tom Brecheisen Invoice To: Tom Brecheisen

Sample Handling Request

Company: Pioneer Environmental, Inc.

 Rush Analysis
 Date Required

Address: 1000 N. Lincoln St #202

X Normal Turn Around

City State Zip: Chicago, IL 60622

Phone: (312) 587-1021

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	PID/FID
5030692 A	B-1 (3'-6')	8-28-00		1 40ml; 1 4oz	S							X					
B	B-1 (9'-12')	8-28-00		1 40ml; 1 4oz	S							X					
C	B-2 (6'-9')	8-28-00		1 40ml; 1 4oz	S							X					
D	B-3 (3'-6')	8-28-00		1 40ml; 1 4oz	S							X					
E	B-4 (3'-6')	8-28-00		1 40ml; 1 4oz	S							X					
F	B-5 (6'-9')	8-28-00		1 40ml; 1 4oz	S							X					
G	B-6 (3'-6')	8-28-00		1 40ml; 1 4oz	S							X					
H	B-6 (9'-12')	8-28-00		1 40ml; 1 4oz	S							X					
I	B-7 (3'-6')	8-28-00		1 40ml; 1 4oz	S							X					

Department Use Only

Split Samples: Offered? Yes No

Accepted? Yes No

Accepted By:

Comments/ Special Instructions

*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.
Run samples B-6 (9'-12'), B-10 (10'-12') + B-13 (6'-8') cancel all other samples per Hold: B-6 (9'-12'), B-4 (3'-6') Charity Holcomb
Run sample B-4 (6'-9') per Tom Brecheisen 9/19/00

Department Use Optional for Soil Samples

Relinquished By: (sign) Thomas A Brecheisen Time 11:10 Date 8-28-00

Received By: (sign) Time Date

Time: Date:

CHAIN OF CUSTODY RECORD



Analytical Lab *Probert & Co.*

Rev. Date: 12-17-98

1090 Kennedy Ave. • Kimberly, WI 54136
(920) 735-8295 • FAX 920-739-1738 • 800-490-4902
LAB@USOIL.COM

Chain # **21381**

Lab I.D. _____

Account No. _____ Quote No. _____

Page _____ of _____

Project #: _____

Sample Integrity: To be completed by receiving lab
Method of Shipment: _____ Temp. of Temp. Blank: _____
Cooler seal intact upon receipt: Yes ☐ No ☒ Lab coded By: _____

Sampler: (signature) _____

Project (Name / Location): _____

Analysis Requested

Reports To: *Julie A. McKay* Invoice To: *same*

Sample Handling Request

Company: *US Analytical Lab* Company: _____

Address: *1090 Kennedy Ave* Address: _____

City State Zip: *Kimberly, WI 54136* City State Zip: _____

Phone: *920-735-8295* Phone: _____

Rush Analysis _____

Date Required _____

☒ Normal Turn Around

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis	PID/FID
	5030493T	8/2/00		1 4oz jar	Soil												<input checked="" type="checkbox"/>	

Department Use Only

Split Samples: Offered? Yes ☐ No ☐

Accepted? Yes ☐ No ☐

Accepted By: _____

Comments/ Special Instructions

*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

Run samples b-4(9-12), b-10(10-12) + b-13(6-8) as needed otherwise no further analysis

Run samples b-4(9-12), b-10(10-12) + b-13(6-8) as needed otherwise no further analysis

Department Use Optional for Soil Samples

Disposition of unused portion of sample

Lab Should: _____

Dispose _____ Retain for _____ days

Return _____ Other _____

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
<i>Julie A. McKay</i>	1530	8/2/00	<i>K. Veris</i>	1530	8/2/00
<i>K. Veris</i>	1610	8/2/00			

Received in Laboratory By: _____

Time: _____

Date: _____

CHAIN OF CUSTODY RECORD



Analytical Lab

1090 Kennedy Ave. • Kimberly, WI 54136
(920) 735-8295 • FAX 920-739-1738 • 800-490-4902
LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # **20994**

Page **3** of **3**

Lab I.D. # **5030692**

Account No. : Quote No.:

Project #: **00618**
Sampler: (signature) *Thomas A Brecheisen*
Sample integrity to be completed by receiving lab:
Method of Shipment: **7PS** Temp. of Temp. Blank: **°C On Ice: X**
Cooler seal intact upon receipt: **X** Yes **No** Labcoded By: **X**

Project (Name / Location): **The Mercy Corporation / 2659 Wisconsin St.**
Reports To: **Tom Brecheisen** Invoice To:
Company: **Pioneer** Company:
Address: **1077 N. Halsted #202** Address:
City State Zip: **Chicago, IL 60622** City State Zip:
Phone: **(312) 587-1121** Phone:

Sample Handling Request
Rush Analysis
Date Required
X Normal Turn Around

Analysis Requested

Analysis Requested										Other Analysis	
DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point		PID/FID
				X	X						
				X	X						
				X	X						
				X	X						
				X	X						
				X	X						
				X	X						
				X	X						
				X	X						

Lab I.D.	Sample I.D.	Collection		No. of Containers	Description*	Preservation
		Date	Time	Size and Type		
5030692M	B-10 (4'-6')	8-29-00		1 40ml; 1 412.	S	
N	B-10 (10'-12')	8-29-00		1 40ml; 1 412.	S	
O	B-11 (4'-6')	8-29-00		1 40ml; 1 412.	S	
D	B-12 (4'-6')	8-29-00		1 40ml; 1 412.	S	
Q	B-13 (6'-8')	8-29-00		1 40ml; 1 412.	S	
R	B-14 (3'-6')	8-29-00		1 40ml; 1 412.	S	
S	B-15 (3'-6')	8-29-00		1 40ml; 1 412.	S	
T	B-14 (6'-9')	8-29-00		1 40ml; 1 412.	S	

Department Use Only

Split Samples: Offered? ☐ Yes ☐ No
Accepted? ☐ Yes ☐ No
Accepted By: _____

Comments/ Special Instructions: **Run Sample B-14 (6'-9') per Tom Brecheisen 9/14/00 JRM**
*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.
HOLD: B-10 (10'-12'); B-13 (6'-8'); B-14 (3'-6'); B-14 (6'-9'); B-15 (3'-6')
Run samples B-10 (4'-12'), B-10 (10'-12') + B-13 (6'-8') cancel all others

Department Use Optional for Soil Samples

Disposition of unused portion of sample: ☐ Lab Should: ☐ Dispose ☐ Retain for _____ days ☐ Return ☐ Other _____

Relinquished By: (sign) _____ Time _____ Date _____ Received By: (sign) _____ Time _____ Date _____

Received in Laboratory By: *C. M. Kelly* Time: **9:30** Date: **8/20/00**

CHAIN OF CUSTODY RECORD



Analytical Lab

1090 Kennedy Ave. • Kimberly, WI 54136
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902
 LAB@USOIL.COM

Chain # N^o 21631

Page ____ of ____

Lab I.D. # 5030933

Account No.:

Quote No.:

Project #: 00618

Sample Integrity: To be completed by receiving lab.

Method of Shipment: in-house sample

Cooler seal intact upon receipt: Yes No

Temp: Blank

Lab coded By: JAM

Sampler: (signature)

Project (Name / Location):

Analysis Requested

Reports To: Jem Brecheisen Invoice To:

Company: Pioneer Environmental Company

Address: Address

City State Zip: City State Zip

Phone: Phone

Sample Handling Request

Rush Analysis

Date Required

X Normal Turn Around

Other Analysis

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis	PID/FID
5030933A	B-14(3'16)	8/29/00		1- 4g jar	soil	none												

Department Use Only

Split Samples: Offered? Yes No

Accepted? Yes No

Accepted By: _____

Comments/ Special Instructions

*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

Run TOC per Jem B. 9/26/00 JAM
 previously lab coded 5030692B

Relinquished By: (sign)

Time

Date

Received By: (sign)

Time

Date

Department Use Optional for Soil Samples

Disposition of unused portion of sample

Lab Should:

Dispose Retain for days

Return Other

Received in Laboratory By: in-house sample

Time: 9:30

Date: 8/30/00

APPENDIX F

ISGS Well Search Results

Non Oil and Gas - Wells

120432768400 Wellendorf, Rodney 13-38N-10E
 DuPage Airhart Construction
 Status: WATER NW Elev: 0
 permit: 129371 permit date: 02/09/87 comp. date: 02/24/87
 Lambert X: 3394629 Lambert Y: 3188153 td: 200
 producing formation: td formation:
 latitude: 41.783029 longitude: 88.046759
 Water from limestone at depth 0 to 0 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	BLACK STEEL	0	131

 Size hole below casing: 5 in.
 Static level 85 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 120 ft. when pumping at 10 gpm for 4 hours.
 Formations Passed Through Thickness Bottom
 shale 105 105
 sand & shale 26 131
 limestone 69 200

120432837000 Lode, Lawrence James 13-38N-10E
 DuPage Andermann, Daniel
 Status: WATER NE NE NW Elev: 0
 permit: 008034 permit date: 11/28/88 comp. date: 12/09/88
 Lambert X: 3395574 Lambert Y: 3189196 td: 215
 producing formation: td formation:
 latitude: 41.785862 longitude: 88.043218
 Water from rock at depth 100 to 215 ft.
 Screen: Diam. in. Length: 0 ft. Slot:
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	GALVANIZED A120	0	100

 Size hole below casing: 4.75 in.
 Static level 0 ft. below casing top which is 0 ft. above grnd level.
 Pumping level 0 ft. when pumping at 0 gpm for 0 hours.
 Formations Passed Through Thickness Bottom
 black dirt 4 4
 yellowish clay 12 16
 bluish clay 15 31
 sandy gravel 24 55
 blue clay 31 86
 bouldery gravel 6 92
 porous gravel 8 100
 rock 115 215

120430013600 Randa Wm J 13-38N-10E
 DuPage Andrzejewski Bros
 Status: WATER NW SW NE Elev: 750GL
 permit: 0 permit date: comp. date: 01/01/58
 Lambert X: 3396282 Lambert Y: 3187901 td: 163
 producing formation: td formation:
 latitude: 41.782406 longitude: 88.040589

120432837100 Liberg, Patrick A. 13-38N-10E
 DuPage Angderson, Charlston
 Status: WATER NW SE SE Elev: 0
 permit: 007539 permit date: 11/09/88 comp. date: 06/07/89
 Lambert X: 3397689 Lambert Y: 3185311 td: 175
 producing formation: td formation:
 latitude: 41.775061 longitude: 88.035661
 Water from limestone at depth 130 to 175 ft.
 Screen: Diam. in. Length: 0 ft. Slot:

Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	BLACK 15#/FT	0	130

Size hole below casing: 5 in.

Static level 130 ft. below casing top which is 1 ft. above grnd level.

Pumping level 130 ft. when pumping at 0 gpm for 2 hours.

Formations Passed Through

	Thickness	Bottom
clay	130	130
sand & gravel	5	135
rock	40	175

120430247700 K & K Well Drilling 13-38N-10E
 DuPage Balducci
 Status: WATER SW Elev: 0
 permit: 0 permit date: comp. date: 04/01/72
 Lambert X: 3394737 Lambert Y: 3185501 td: 160
 producing formation: td formation:
 latitude: 41.779429 longitude: 88.046342

120432786200 Fykes, Charles N. 13-38N-10E
 DuPage Bales, Steve 1
 Status: WATER SE NW NW Elev: 0
 permit: 133510 permit date: 07/15/87 comp. date: 07/27/87
 Lambert X: 3394287 Lambert Y: 3188468 td: 205
 producing formation: td formation:
 latitude: 41.783912 longitude: 88.047999
 Water from limestone at depth 100 to 205 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15#	0	100

Size hole below casing: 5 in.

Static level 100 ft. below casing top which is 1 ft. above grnd level.

Pumping level 140 ft. when pumping at 30 gpm for 1 hours.

Formations Passed Through

	Thickness	Bottom
top soil	4	4
clay	23	27
gravel	15	42
blue clay	45	87
gravel	13	100
limestone	105	205

120430163300 Austin, Harry 13-38N-10E
 DuPage Baula Otto H
 Status: WATER N2 Elev: 0
 permit: 0 permit date: comp. date:
 Lambert X: 3395941 Lambert Y: 3188217 td: 141
 producing formation: td formation:
 latitude: 41.783338 longitude: 88.041773

120430298200 K & K Well Drilling 13-38N-10E
 DuPage Benet Realty
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 09/01/72
 Lambert X: 3397351 Lambert Y: 3185627 td: 160
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430301300 K & K Well Drilling 13-38N-10E
 DuPage Benet Realty
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 10/01/72
 Lambert X: 3397351 Lambert Y: 3185627 td: 160
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430027300 Perrine William 13-38N-10E
 DuPage Birkland
 Status: WATER 875 SL 600 EL NE Elev: 750GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3397982 Lambert Y: 3187862 td: 170
 producing formation: td formation:
 latitude: 41.782071 longitude: 88.034537

120432502900 Lockport Well & Pump 13-38N-10E
 DuPage Bonnsteel Rich 1
 Status: WATER NW SE SE Elev: 0
 permit: 0 permit date: comp. date: 12/01/76
 Lambert X: 3397689 Lambert Y: 3185311 td: 185
 producing formation: td formation:
 latitude: 41.777772 longitude: 88.035720

120430163400 Austin, Harry 13-38N-10E
 DuPage Boughton Wm
 Status: WATER 4125 SL 500 EL Elev: 750GL
 permit: 0 permit date: comp. date: 01/01/46
 Lambert X: 3398062 Lambert Y: 3188456 td: 141
 producing formation: td formation:
 latitude: 41.783708 longitude: 88.034230

120432823200 Senffner, Alan James 13-38N-10E
 DuPage Brazys, Matthew
 Status: WATER SE SW SE Elev: 0
 permit: 004038 permit date: 07/25/88 comp. date: 08/12/88
 Lambert X: 3397061 Lambert Y: 3184616 td: 190
 producing formation: td formation:
 latitude: 41.773174 longitude: 88.038014
 Water from limestone at depth 0 to 0 ft.
 Screen: Diam. in. Length: 0 ft. Slot:
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	STEEL 14.98	0	120

 Size hole below casing: 5 in.
 Static level 0 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 90 ft. when pumping at 10 gpm for 2 hours.
 Formations Passed Through Thickness Bottom
 drift 120 120
 limestone 70 190

120430039500 Perrine William 13-38N-10E
 DuPage Brewer John E
 Status: WATER 475 SL 725 WL Elev: 750GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3394191 Lambert Y: 3184622 td: 175
 producing formation: td formation:
 latitude: 41.773319 longitude: 88.048498

120432628300 Weirich, William Theodore 13-38N-10E
 DuPage Brewer, Scott 1
 Status: WATER NW SE SE Elev: 0
 permit: 105300 permit date: 10/18/82 comp. date: 10/29/82
 Lambert X: 3397689 Lambert Y: 3185311 td: 171
 producing formation: td formation:
 latitude: 41.775061 longitude: 88.035661
 Water from limestone at depth 0 to 0 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
0			

 Size hole below casing: 0 in.

Static level	0 ft. below casing top which is	0 ft. above grnd level.
Pumping level	0 ft. when pumping at	0 gpm for 0 hours.
Formations Passed Through	Thickness	Bottom
drift	128	128
yellow limestone	43	171

120430052200	Beyreis, Kenneth	13-38N-10E
DuPage	Briarcliff Corp	13
Status: WATER	1960 NL 50 EL	Elev: 745GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3398537	Lambert Y: 3187715	td: 125
producing formation:	td formation:	
latitude: 41.784890	longitude: 88.041511	

120430036500	Neely, George	13-38N-10E
DuPage	Briarcliff Corp	17
Status: WATER	595 SL 1245 WL NE	Elev: 751GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3397212	Lambert Y: 3187545	td: 180
producing formation:	td formation:	
latitude: 41.773690	longitude: 88.046789	

120430039400	Neely, George	13-38N-10E
DuPage	Briarcliff Corp	24
Status: WATER	1075 NL 1275 EL	Elev: 750GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3397284	Lambert Y: 3188538	td: 165
producing formation:	td formation:	
latitude: 41.782397	longitude: 88.037053	

120430039600	Neely, George	13-38N-10E
DuPage	Briarcliff Corp	32
Status: WATER	900 SL 1050 EL	Elev: 760GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3397624	Lambert Y: 3185210	td: 170
producing formation:	td formation:	
latitude: 41.774786	longitude: 88.035932	

120430052300	Neely, George	13-38N-10E
DuPage	Briarcliff Corp	51
Status: WATER	1900 SL 1200 EL	Elev: 0
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3397440	Lambert Y: 3186201	td: 170
producing formation:	td formation:	
latitude: 41.777526	longitude: 88.036583	

120430039300	Neely, George	13-38N-10E
DuPage	Briarcliff Corp	9
Status: WATER	825 SL 525 WL	Elev: 738GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3393976	Lambert Y: 3184962	td: 150
producing formation:	td formation:	
latitude: 41.774267	longitude: 88.049214	

120430027500	Neely, George	13-38N-10E
DuPage	Briarcliff Corp	
Status: WATER	825 SL 600 EL NE	Elev: 750GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3397984	Lambert Y: 3187812	td: 166
producing formation:	td formation:	
latitude: 41.781934	longitude: 88.034533	

120430052100 Perrine William 13-38N-10E
 DuPage Briarcliff Corp
 Status: WATER 1440 SL 1230 EL Elev: 0
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3397426 Lambert Y: 3185741 td: 170
 producing formation: td formation:
 latitude: 41.776256 longitude: 88.036648

120430024500 Perrine William 13-38N-10E
 DuPage Briarcliff Corp
 Status: WATER 1180 SL 710 EL NE Elev: 0
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3397862 Lambert Y: 3188161 td: 165
 producing formation: td formation:
 latitude: 41.782909 longitude: 88.034972

120430086800 Neely, George 13-38N-10E
 DuPage Bunting Edward
 Status: WATER 300 SL 150 EL SW SW SE Elev: 0
 permit: 0 permit date: comp. date: 09/01/67
 Lambert X: 3396590 Lambert Y: 3184561 td: 140
 producing formation: td formation:
 latitude: 41.773043 longitude: 88.039751

120430039700 Neely, George 13-38N-10E
 DuPage Casper Bldrs 25
 Status: WATER 175 SL 375 WL SE Elev: 720GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3396463 Lambert Y: 3184430 td: 150
 producing formation: td formation:
 latitude: 41.772457 longitude: 88.050019

120432711600 Knierim, Phillip E. 13-38N-10E
 DuPage Chiapetta, Joe
 Status: WATER NW NE NW Elev: 0
 permit: 119470 permit date: 08/09/85 comp. date: 08/29/85
 Lambert X: 3394917 Lambert Y: 3189163 td: 180
 producing formation: td formation:
 latitude: 41.785800 longitude: 88.045639
 Water from rock at depth 80 to 180 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	BLACK 15 LB	0	120

 Size hole below casing: 4.38 in.
 Static level 80 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 160 ft. when pumping at 20 gpm for 4 hours.
 Formations Passed Through Thickness Bottom
 soil 2 2
 clay 78 80
 sand-gravel 40 120
 rock 60 180

120432628400 Fykes, Charles N. 13-38N-10E
 DuPage Clark, Howard Construction 1
 Status: WATER SE NW NE Elev: 0
 permit: 97239 permit date: 11/07/80 comp. date: 11/19/80
 Lambert X: 3396913 Lambert Y: 3188597 td: 165
 producing formation: td formation:
 latitude: 41.784151 longitude: 88.038323
 Water from limestone at depth 105 to 165 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15#	0	109

Size hole below casing: 5 in.
 Static level 100 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 130 ft. when pumping at 15 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 55 55
 gravel 50 105
 limestone 60 165

120430020000 Vidas Mike 13-38N-10E
 DuPage Clover Constr
 Status: WATER 900 SL 800 EL NE Elev: 760GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3397782 Lambert Y: 3187877 td: 175
 producing formation: td formation:
 latitude: 41.782135 longitude: 88.035276

120432628500 Senffner, Alan James 13-38N-10E
 DuPage Crawley Construction
 Status: WATER SW SE SW Elev: 0
 permit: 102155 permit date: 11/18/81 comp. date: 11/18/81
 Lambert X: 3395104 Lambert Y: 3184522 td: 175
 producing formation: td formation:
 latitude: 41.773001 longitude: 88.045224
 Water from limestone at depth 0 to 0 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 STEEL 14.98 0 97

Size hole below casing: 5 in.
 Static level 0 ft. below casing top which is 8 ft. above grnd level.
 Pumping level 85 ft. when pumping at 10 gpm for 2 hours.
 Formations Passed Through Thickness Bottom
 drift 97 97
 limestone 78 175

120432628600 Senffner, Alan James 13-38N-10E
 DuPage Creagan, Steve
 Status: WATER NE Elev: 0
 permit: 102389 permit date: 12/11/81 comp. date: 12/10/81
 Lambert X: 3397253 Lambert Y: 3188281 td: 190
 producing formation: td formation:
 latitude: 41.783266 longitude: 88.037090
 Water from limestone at depth 0 to 0 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 STEEL 14.98 0 99

Size hole below casing: 5 in.
 Static level 0 ft. below casing top which is 8 ft. above grnd level.
 Pumping level 130 ft. when pumping at 10 gpm for 2 hours.
 Formations Passed Through Thickness Bottom
 drift 99 99
 limestone 91 190

120430292800 K & K Well Drilling 13-38N-10E
 DuPage D & L Constr
 Status: WATER NE Elev: 0
 permit: 0 permit date: comp. date: 08/01/72
 Lambert X: 3397253 Lambert Y: 3188281 td: 180
 producing formation: td formation:
 latitude: 41.783323 longitude: 88.037074

120430020200 Randa Wm J 13-38N-10E
 DuPage Dahl John
 Status: WATER 900 SL 60 EL SE Elev: 748GL

permit: 0 permit date: comp. date: 01/01/58
 Lambert X: 3398612 Lambert Y: 3185257 td: 165
 producing formation: td formation:
 latitude: 41.774871 longitude: 88.032292

120430147800 K & K Well Drilling 13-38N-10E
 DuPage Dak Brook-Stade
 Status: WATER SW SW SE Elev: 0
 permit: 0 permit date: comp. date: 02/01/71
 Lambert X: 3396409 Lambert Y: 3184585 td: 125
 producing formation: td formation:
 latitude: 41.774032 longitude: 88.040407

120432628700 Senffner, Alan James 13-38N-10E
 DuPage Dickerson, Ken
 Status: WATER NW Elev: 0
 permit: 104324 permit date: 07/29/82 comp. date: 07/22/82
 Lambert X: 3394629 Lambert Y: 3188153 td: 190
 producing formation: td formation:
 latitude: 41.783029 longitude: 88.046759
 Water from limestone at depth 0 to 0 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 STEEL 14.98 0 97
 Size hole below casing: 5 in.
 Static level 0 ft. below casing top which is 8 ft. above grnd level.
 Pumping level 120 ft. when pumping at 10 gpm for 2 hours.
 Formations Passed Through Thickness Bottom
 drift 97 97
 limestone 93 190

120432529100 Fykes Charles & Pump 13-38N-10E
 DuPage Domzalski Victor 1
 Status: WATER SE SE NW Elev: 0
 permit: 0 permit date: comp. date: 09/01/78
 Lambert X: 3395652 Lambert Y: 3187206 td: 165
 producing formation: td formation:
 latitude: 41.780541 longitude: 88.042938

120432374600 Lockport Well & Pump 13-38N-10E
 DuPage Ericksen D H 1
 Status: WATER SW SE Elev: 0
 permit: 0 permit date: comp. date: 03/01/74
 Lambert X: 3396722 Lambert Y: 3184932 td: 160
 producing formation: td formation:
 latitude: 41.775884 longitude: 88.039241

120430027100 Randa Wm J 13-38N-10E
 DuPage Fagulec J
 Status: WATER 425 NL 100 EL SE Elev: 770GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3398526 Lambert Y: 3186588 td: 167
 producing formation: td formation:
 latitude: 41.785717 longitude: 88.032827

120432415900 K & K Well Drilling 13-38N-10E
 DuPage Freese Herb
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 05/01/75
 Lambert X: 3397351 Lambert Y: 3185627 td: 160
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120432529200 Fykes Charles & Pump 13-38N-10E
 DuPage George'S Lumber 1
 Status: WATER SW NW Elev: 0
 permit: 0 permit date: comp. date: 05/01/78
 Lambert X: 3394000 Lambert Y: 3187458 td: 185
 producing formation: td formation:
 latitude: 41.781463 longitude: 88.048847

120430248200 Lockport Well & Pump 13-38N-10E
 DuPage Grodolph Paul 1
 Status: WATER NE NW NW Elev: 0
 permit: 0 permit date: comp. date: 05/01/72
 Lambert X: 3394259 Lambert Y: 3189131 td: 185
 producing formation: td formation:
 latitude: 41.786184 longitude: 88.047616

120432747700 Fykes, Charles 13-38N-10E
 DuPage Grows, Robert 1
 Status: WATER 670 NL 420 WL Elev: 768GL
 permit: 126384 permit date: 08/27/86 comp. date: 08/27/86
 Lambert X: 3393707 Lambert Y: 3188766 td: 205
 producing formation: td formation:
 latitude: 41.784759 longitude: 88.050117
 Water from limestone at depth 120 to 205 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15 LB 0 120

Size hole below casing: 5 in.
 Static level 120 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 160 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 80 80
 gravel 40 120
 limestone 85 205

120432866000 Fykes, Charles N. 13-38N-10E
 DuPage Gurtler, Dave 1
 Status: WATER NW NW NW Elev: 0
 permit: 013950 permit date: 08/17/89 comp. date: 09/20/89
 Lambert X: 3393602 Lambert Y: 3189098 td: 205
 producing formation: td formation:
 latitude: 41.785678 longitude: 88.050485
 Water from limestone at depth 120 to 205 ft.
 Screen: Diam. in. Length: 0 ft. Slot:
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A53 15# 0 120

Size hole below casing: 5 in.
 Static level 80 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 100 ft. when pumping at 0 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 30 30
 gravel 10 40
 clay 60 100
 gravel 20 120
 limestone 85 205

120432628800 Ward, Delbert G. 13-38N-10E
 DuPage Healy, Bill
 Status: WATER NW Elev: 0
 permit: 106111 permit date: 01/27/83 comp. date: 02/03/83
 Lambert X: 3394629 Lambert Y: 3188153 td: 160
 producing formation: td formation:
 latitude: 41.783029 longitude: 88.046759

Water from rock at depth 0 to 160 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 #15 BLACK 0 108
 Size hole below casing: 4.75 in.
 Static level 85 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 105 ft. when pumping at 10 gpm for 4 hours.
 Formations Passed Through Thickness Bottom
 clay 60 60
 sand & gravel 5 65
 clay 30 95
 sand gravel 13 108
 rock 52 160

120432463700 K & K Well Drilling 13-38N-10E
 DuPage Hemza Joe
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 07/01/76
 Lambert X: 3397351 Lambert Y: 3185627 td: 160
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430068500 Randa Wm J 13-38N-10E
 DuPage Herkel Donald 59
 Status: WATER 2650 NL 1600 WL Elev: 0
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3394970 Lambert Y: 3186848 td: 137
 producing formation: td formation:
 latitude: 41.779417 longitude: 88.045580

120430039900 Neely, George 13-38N-10E
 DuPage Hijo Industries 28
 Status: WATER 950 NL 100 EL Elev: 740GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3398453 Lambert Y: 3188720 td: 150
 producing formation: td formation:
 latitude: 41.782104 longitude: 88.041387

120432628900 Ward, Delbert G. 13-38N-10E
 DuPage Hodina, George
 Status: WATER NW Elev: 0
 permit: 106852 permit date: 04/20/83 comp. date: 04/27/83
 Lambert X: 3394629 Lambert Y: 3188153 td: 160
 producing formation: td formation:
 latitude: 41.783029 longitude: 88.046759
 Water from rock at depth 0 to 160 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 #15 BLACK 0 90
 Size hole below casing: 4.5 in.
 Static level 30 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 50 ft. when pumping at 10 gpm for 4 hours.
 Formations Passed Through Thickness Bottom
 clay 87 87
 sand gravel 3 90
 rock 70 160

120430067400 Neely, George 13-38N-10E
 DuPage Hoffman W C 17
 Status: WATER 1200 SL 600 EL Elev: 0
 permit: 0 permit date: comp. date: 01/01/60
 Lambert X: 3398063 Lambert Y: 3185531 td: 175
 producing formation: td formation:

latitude: 41.775651 longitude: 88.034308

120430067300 Perrine William 13-38N-10E
DuPage Hoffman W C
Status: WATER 2050 SL 600 EL Elev: 0
permit: 0 permit date: comp. date: 01/01/60
Lambert X: 3398034 Lambert Y: 3186380 td: 175
producing formation: td formation:
latitude: 41.777990 longitude: 88.034390

120430052400 Neely, George 13-38N-10E
DuPage Holbrook Warren 41
Status: WATER 350 SL 1280 EL Elev: 0
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3397411 Lambert Y: 3184650 td: 155
producing formation: td formation:
latitude: 41.773252 longitude: 88.036723

120432406800 Dupage Pump 13-38N-10E
DuPage Horgan Geo J
Status: WATER SW NE Elev: 0
permit: 0 permit date: comp. date: 04/01/75
Lambert X: 3396622 Lambert Y: 3187586 td: 200
producing formation: td formation:
latitude: 41.781479 longitude: 88.039397

120432960400 Knierim, Phil 13-38N-10E
DuPage Ivco Builders Inc.
Status: WATER SW SE SE Elev: 0
permit: permit date: 03/10/94 comp. date: 08/29/94
Lambert X: 3397713 Lambert Y: 3184647 td: 200
producing formation: td formation:
latitude: 41.773230 longitude: 88.035612
Water from rock at depth 130 to 200 ft.
Screen: Diam. in. Length: 0 ft. Slot:
Casing and Liner Pipe -
Diam. (in.) Kind and Weight From(ft) To(ft)
5 PVC 200 PSI 0 112
Size hole below casing: 4.75 in.
Static level 80 ft. below casing top which is 1 ft. above grnd level.
Pumping level 110 ft. when pumping at 0 gpm for 3 hours.
Formations Passed Through Thickness Bottom
top soil 3 3
clay 62 65
sand & gravel 7 72
clay 11 83
sand & gravel 25 108
rock 92 200

120430284300 K & K Well Drilling 13-38N-10E
DuPage James Const
Status: WATER SW Elev: 0
permit: 0 permit date: comp. date: 05/01/72
Lambert X: 3394737 Lambert Y: 3185501 td: 160
producing formation: td formation:
latitude: 41.779429 longitude: 88.046342

120432493200 K & K Well Drilling 13-38N-10E
DuPage Janoski Bruno
Status: WATER W2 NW Elev: 0
permit: 0 permit date: comp. date: 01/01/77
Lambert X: 3393973 Lambert Y: 3188121 td: 160
producing formation: td formation:
latitude: 41.783357 longitude: 88.048821

120432529300 13-38N-10E
 DuPage Jelinek Lester
 Status: WATER NW NW SW Elev: 0
 permit: 0 permit date: comp. date: 12/01/77
 Lambert X: 3393715 Lambert Y: 3186448 td: 180
 producing formation: td formation:
 latitude: 41.784926 longitude: 88.049768

120432629000 13-38N-10E
 DuPage Jenschke, James 1
 Status: WATER SE NE NE Elev: 0
 permit: 95420 permit date: 08/08/80 comp. date: 08/21/80
 Lambert X: 3398226 Lambert Y: 3188661 td: 185
 producing formation: td formation:
 latitude: 41.784270 longitude: 88.033485
 Water from limestone at depth 134 to 185 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15# 0 136

Size hole below casing: 5 in.
 Static level 115 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 130 ft. when pumping at 12 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 8 8
 gravel 17 25
 clay 12 37
 sand/gravel 8 45
 clay 35 80
 gravel 25 105
 lime/shale 29 134
 limestone 51 185

120430027400 13-38N-10E
 DuPage Perrine William
 Status: WATER Johnson
 750 SL 725 EL NE Elev: 755GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3397862 Lambert Y: 3187731 td: 165
 producing formation: td formation:
 latitude: 41.781724 longitude: 88.034983

120432917800 13-38N-10E
 DuPage Knierim, Phil 1
 Status: WATER Johnson, Bruce
 permit: H920088 permit date: 04/05/92 Elev: 0
 Lambert X: 3396307 Lambert Y: 3187238 comp. date: 06/22/92
 producing formation: td formation: td: 205
 latitude: 41.780433 longitude: 88.040635
 Water from limestone at depth 132 to 205 ft.
 Screen: Diam. in. Length: 0 ft. Slot:
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15# 0 132

Size hole below casing: 5 in.
 Static level 100 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 120 ft. when pumping at 0 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 gravel 20 20
 clay 95 115
 gravel 8 123
 limestone 82 205

120432749900 13-38N-10E
 DuPage Fykes, Charles 1
 Johnson, Ken

Status: WATER 650 NL 375 WL Elev: 768GL
 permit: 126736 permit date: 09/12/86 comp. date: 09/15/86
 Lambert X: 3393662 Lambert Y: 3188783 td: 205
 producing formation: td formation:
 latitude: 41.784808 longitude: 88.050282
 Water from limestone at depth 170 to 205 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15 LB	0	123

Size hole below casing: 5 in.
 Static level 100 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 160 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through

	Thickness	Bottom
top soil	5	5
clay	20	25
gravel	24	49
blue clay	18	67
sand	8	75
gravel	24	99
blue clay	12	111
gravel	11	122
limestone	40	162
no record	8	170
limestone	35	205

120430243300 K & K Well Drilling 13-38N-10E
 DuPage Jones Bill
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 03/01/72
 Lambert X: 3397351 Lambert Y: 3185627 td: 138
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430343400 K & K Well Drilling 13-38N-10E
 DuPage Jorgenson Ralph
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 10/01/73
 Lambert X: 3397351 Lambert Y: 3185627 td: 145
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430343500 K & K Well Drilling 13-38N-10E
 DuPage Jorgenson Ralph
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 10/01/73
 Lambert X: 3397351 Lambert Y: 3185627 td: 140
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430343600 K & K Well Drilling 13-38N-10E
 DuPage Jorgenson Ralph
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 10/01/73
 Lambert X: 3397351 Lambert Y: 3185627 td: 140
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430349000 K & K Well Drilling 13-38N-10E
 DuPage Kibdle Ella
 Status: WATER NW NW NW Elev: 0
 permit: 0 permit date: comp. date: 11/01/73
 Lambert X: 3393602 Lambert Y: 3189098 td: 180
 producing formation: td formation:
 latitude: 41.786207 longitude: 88.049943

120430036800	AI-Well Drilling	13-38N-10E
DuPage	King Donald	8
Status: WATER	990 SL 760 EL SE	Elev: 760GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3397911	Lambert Y: 3185314	td: 180
producing formation:	td formation:	
latitude: 41.775057	longitude: 88.034873	
120430292700	K & K Well Drilling	13-38N-10E
DuPage	Kooling R	
Status: WATER	SW	Elev: 0
permit: 0	permit date:	comp. date: 08/01/72
Lambert X: 3394737	Lambert Y: 3185501	td: 160
producing formation:	td formation:	
latitude: 41.779429	longitude: 88.046342	
120430349100	K & K Well Drilling	13-38N-10E
DuPage	Kost	
Status: WATER	SE	Elev: 0
permit: 0	permit date:	comp. date: 11/01/73
Lambert X: 3397351	Lambert Y: 3185627	td: 160
producing formation:	td formation:	
latitude: 41.779573	longitude: 88.036941	
120432387900	Dupage Pump	13-38N-10E
DuPage	Kremer Jack	
Status: WATER	NE SW NE	Elev: 0
permit: 0	permit date:	comp. date: 09/01/74
Lambert X: 3396938	Lambert Y: 3187934	td: 190
producing formation:	td formation:	
latitude: 41.782405	longitude: 88.038232	
120432423500	K & K Well Drilling	13-38N-10E
DuPage	Kremer John	
Status: WATER	W2 NE	Elev: 0
permit: 0	permit date:	comp. date: 09/01/75
Lambert X: 3396597	Lambert Y: 3188249	td: 150
producing formation:	td formation:	
latitude: 41.783329	longitude: 88.039423	
120432476700	K & K Well Drilling	13-38N-10E
DuPage	Kulius Earl	
Status: WATER	SW	Elev: 0
permit: 0	permit date:	comp. date: 09/01/76
Lambert X: 3394737	Lambert Y: 3185501	td: 140
producing formation:	td formation:	
latitude: 41.779429	longitude: 88.046342	
120432388000	Dupage Pump	13-38N-10E
DuPage	Kwitschaw Algird	
Status: WATER	N2 SE NW	Elev: 0
permit: 0	permit date:	comp. date: 09/01/74
Lambert X: 3395298	Lambert Y: 3187853	td: 180
producing formation:	td formation:	
latitude: 41.782407	longitude: 88.044120	
120430349200	Dupage Pump	13-38N-10E
DuPage	Laursen John	
Status: WATER		Elev: 0
permit: 0	permit date:	comp. date: 11/01/73
Lambert X: 3395993	Lambert Y: 3186891	td: 175

producing formation: td formation:
latitude: 41.779491 longitude: 88.041811

120432752600 Liberg, Paul Evan 13-38N-10E
DuPage Lezeren, Marion
Status: WATER 1000 NL 2300 EL Elev: 760GL
permit: 127299 permit date: 10/02/86 comp. date: 10/01/86
Lambert X: 3396258 Lambert Y: 3188562 td: 180

producing formation: td formation:
latitude: 41.784084 longitude: 88.040737
Water from limestone at depth 128 to 180 ft.
Screen: Diam. 0 in. Length: 0 ft. Slot: 0
Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	BLACK 15 LB/FT	0	128

Size hole below casing: 5 in.
Static level 120 ft. below casing top which is 1 ft. above grnd level.
Pumping level 120 ft. when pumping at 20 gpm for 2 hours.
Formations Passed Through Thickness Bottom
 stoney clay 110 110
 broken gravel 18 128
 rock 52 180

120430027600 Neely, George 13-38N-10E
DuPage Loser Ralph
Status: WATER 1075 NL 1225 WL Elev: 762GL
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3394528 Lambert Y: 3188401 td: 165
producing formation: td formation:
latitude: 41.782507 longitude: 88.046258

120432383400 Dupage Pump 13-38N-10E
DuPage M & S Constr
Status: WATER SW SW NE Elev: 0
permit: 0 permit date: comp. date: 07/01/74
Lambert X: 3396307 Lambert Y: 3187238 td: 190
producing formation: td formation:
latitude: 41.780551 longitude: 88.040569

120432416000 Dupage Pump 13-38N-10E
DuPage M & S Constr
Status: WATER N2. SE NW Elev: 0
permit: 0 permit date: comp. date: 07/01/75
Lambert X: 3395298 Lambert Y: 3187853 td: 175
producing formation: td formation:
latitude: 41.782407 longitude: 88.044120

120430339700 Dupage Pump 13-38N-10E
DuPage M & S Constr
Status: WATER NE Elev: 0
permit: 0 permit date: comp. date: 09/01/73
Lambert X: 3397253 Lambert Y: 3188281 td: 180
producing formation: td formation:
latitude: 41.783323 longitude: 88.037074

120430323400 Dupage Pump 13-38N-10E
DuPage M & S Constr
Status: WATER NE Elev: 0
permit: 0 permit date: comp. date: 06/01/73
Lambert X: 3397253 Lambert Y: 3188281 td: 175
producing formation: td formation:
latitude: 41.783323 longitude: 88.037074

120432476800 Dupage Pump 13-38N-10E
 DuPage M & S Constr
 Status: WATER NE SW NE Elev: 0
 permit: 0 permit date: comp. date: 10/01/76
 Lambert X: 3396938 Lambert Y: 3187934 td: 190
 producing formation: td formation:
 latitude: 41.782405 longitude: 88.038232

120430067500 Neely, George 13-38N-10E
 DuPage Maly Jerome 20
 Status: WATER 2375 NL 75 EL Elev: 0
 permit: 0 permit date: comp. date: 01/01/60
 Lambert X: 3398527 Lambert Y: 3187299 td: 175
 producing formation: td formation:
 latitude: 41.786033 longitude: 88.041395

120432433700 K & K Well Drilling 13-38N-10E
 DuPage Masek Frank
 Status: WATER SW Elev: 0
 permit: 0 permit date: comp. date: 12/01/75
 Lambert X: 3394737 Lambert Y: 3185501 td: 160
 producing formation: td formation:
 latitude: 41.779429 longitude: 88.046342

120432629100 Knierim, Phil 13-38N-10E
 DuPage Masek, George
 Status: WATER SE SW NE Elev: 0
 permit: 94356 permit date: 06/12/80 comp. date: 06/13/80
 Lambert X: 3396962 Lambert Y: 3187270 td: 140
 producing formation: td formation:
 latitude: 41.780492 longitude: 88.038221
 Water from limestone at depth 130 to 140 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 BLACK 15# 0 130
 Size hole below casing: 4.75 in.
 Static level 105 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 120 ft. when pumping at 20 gpm for 4 hours.
 Formations Passed Through Thickness Bottom
 top soil 5 5
 clay 120 125
 sand & gravel 14 139
 limestone 1 140

120430039800 Beyreis, Kenneth 13-38N-10E
 DuPage McCabe 1
 Status: WATER 825 NL 1025 WL Elev: 760GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3394318 Lambert Y: 3188641 td: 122
 producing formation: td formation:
 latitude: 41.781810 longitude: 88.045536

120432739100 Fykes, Charles 13-38N-10E
 DuPage Meilbeck, Dave 1
 Status: WATER NE SE NW Elev: 0
 permit: 124630 permit date: 06/19/86 comp. date: 07/18/86
 Lambert X: 3395626 Lambert Y: 3187869 td: 185
 producing formation: td formation:
 latitude: 41.782202 longitude: 88.043105
 Water from limestone at depth 99 to 185 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15 LB 0 105

Size hole below casing: 5 in.

Static level 90 ft. below casing top which is 1 ft. above grnd level.

Pumping level 130 ft. when pumping at 12 gpm for 1 hours.

Formations Passed Through	Thickness	Bottom
clay	24	24
gravel	11	35
clay	15	50
sand	5	55
gravel	23	78
sand	9	87
sand & gravel	12	99
limestone	86	185

120432433800 Sission, Edward H. 13-38N-10E
DuPage Mentelle James
Status: WATER 160 NL 260 EL SW NE NE Elev: 0
permit: 0 permit date: comp. date: 11/01/75
Lambert X: 3397632 Lambert Y: 3188805 td: 175
producing formation: td formation:
latitude: 41.784713 longitude: 88.035718

120430052500 Beyreis, Kenneth 13-38N-10E
DuPage Mitchel Tomas 9
Status: WATER 1680 SL 2050 EL Elev: 0
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3396599 Lambert Y: 3185941 td: 126
producing formation: td formation:
latitude: 41.776846 longitude: 88.039684

120430012200 Randa Wm J 13-38N-10E
DuPage Molitor Donald
Status: WATER SE NE SE Elev: 750GL
permit: 0 permit date: comp. date: 01/01/58
Lambert X: 3398319 Lambert Y: 3186006 td: 163
producing formation: td formation:
latitude: 41.781441 longitude: 88.033476

120432843500 Knierim, Phillip E. 13-38N-10E
DuPage Moroney, Mark
Status: WATER 75 NL 2100 WL Elev: 742GL
permit: 111378 permit date: 03/01/84 comp. date: 08/16/84
Lambert X: 3395358 Lambert Y: 3189442 td: 160
producing formation: td formation:
latitude: 41.786549 longitude: 88.043999
Water from rock at depth 110 to 160 ft.
Screen: Diam. 0 in. Length: 0 ft. Slot: 0
Casing and Liner Pipe -
Diam. (in.) Kind and Weight From(ft) To(ft)
5 BLACK #15 0 110

Size hole below casing: 4.75 in.

Static level 80 ft. below casing top which is 1 ft. above grnd level.

Pumping level 120 ft. when pumping at 10 gpm for 2 hours.

Formations Passed Through	Thickness	Bottom
top soil	4	4
clay	81	85
sand gravel	25	110
rock	50	160

120430052600 Neely, George 13-38N-10E
DuPage Munson 2
Status: WATER 1030 NL 600 EL Elev: 0
permit: 0 permit date: comp. date: 01/01/60
Lambert X: 3397956 Lambert Y: 3188616 td: 165
producing formation: td formation:
latitude: 41.782303 longitude: 88.039541

120432493300 K & K Well Drilling 13-38N-10E
 DuPage Myers Steve
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 03/01/77
 Lambert X: 3397351 Lambert Y: 3185627 td: 130
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120432503000 K & K Well Drilling 13-38N-10E
 DuPage Myers Steve
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 04/01/77
 Lambert X: 3397351 Lambert Y: 3185627 td: 114
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120432720300 Fykes, Charles 13-38N-10E
 DuPage Myers, William 1
 Status: WATER 525 NL 300 WL Elev: 768GL
 permit: 127909 permit date: 10/10/85 comp. date: 10/11/85
 Lambert X: 3393581 Lambert Y: 3188904 td: 185
 producing formation: td formation:
 latitude: 41.785145 longitude: 88.050573
 Water from limestone at depth 125 to 185 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15 LB 0 126

Size hole below casing: 5 in.
 Static level 80 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 120 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 25 25
 sand 5 30
 clay 80 110
 gravel 15 125
 limestone 60 185

120432629200 Fykes, Charles N. 13-38N-10E
 DuPage Oakbrook Builders 1
 Status: WATER SE SW SE Elev: 0
 permit: 84665 permit date: 04/16/79 comp. date: 04/20/79
 Lambert X: 3397061 Lambert Y: 3184616 td: 165
 producing formation: td formation:
 latitude: 41.773174 longitude: 88.038014
 Water from limestone at depth 110 to 165 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15# 0 110

Size hole below casing: 5 in.
 Static level 80 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 100 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 60 60
 gravel 50 110
 limestone 55 165

120432731400 Fykes, Charles 13-38N-10E
 DuPage Pagemark Construction Co. 1
 Status: WATER NE NE SE Elev: 0
 permit: 122631 permit date: 03/20/86 comp. date: 03/21/86
 Lambert X: 3398296 Lambert Y: 3186670 td: 165
 producing formation: td formation:

latitude: 41.778779 longitude: 88.033345
 Water from limestone at depth 133 to 165 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15 LB 0 134
 Size hole below casing: 5 in.
 Static level 70 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 100 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 30 30
 clay & gravel 35 65
 gravel 20 85
 clay 30 115
 gravel 18 133
 limestone 32 165

120430132200 Bilsky, J. W. 13-38N-10E
 DuPage Parklane
 Status: WATER E2 Elev: 0
 permit: 0 permit date: comp. date: 12/01/69
 Lambert X: 3397302 Lambert Y: 3186954 td: 140
 producing formation: td formation:
 latitude: 41.786860 longitude: 88.037097

120432493400 K & K Well Drilling 13-38N-10E
 DuPage Parklane Realty
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 03/01/77
 Lambert X: 3397351 Lambert Y: 3185627 td: 100
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430243400 K & K Well Drilling 13-38N-10E
 DuPage Parrish Const
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 03/01/72
 Lambert X: 3397351 Lambert Y: 3185627 td: 130
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430243500 K & K Well Drilling 13-38N-10E
 DuPage Parrish Const
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 03/01/72
 Lambert X: 3397351 Lambert Y: 3185627 td: 120
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120432374700 K & K Well Drilling 13-38N-10E
 DuPage Parrish Constr
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 05/01/74
 Lambert X: 3397351 Lambert Y: 3185627 td: 160
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120432493500 K & K Well Drilling 13-38N-10E
 DuPage Paul Donald
 Status: WATER W2 NW Elev: 0
 permit: 0 permit date: comp. date: 12/01/76
 Lambert X: 3393973 Lambert Y: 3188121 td: 160
 producing formation: td formation:
 latitude: 41.783357 longitude: 88.048821

120430163500 Austin, Harry 13-38N-10E
 DuPage Pechous Edwin J
 Status: WATER Elev: 0
 permit: 0 permit date: comp. date:
 Lambert X: 3395993 Lambert Y: 3186891 td: 170
 producing formation: td formation:
 latitude: 41.779491 longitude: 88.041811

120430201300 K & K Well Drilling 13-38N-10E
 DuPage Perkins W
 Status: WATER SE NW NW Elev: 0
 permit: 0 permit date: comp. date: 03/01/71
 Lambert X: 3394287 Lambert Y: 3188468 td: 170
 producing formation: td formation:
 latitude: 41.784296 longitude: 88.047634

120432463800 Dupage Pump 13-38N-10E
 DuPage Randa Clara
 Status: WATER E2 E2 Elev: 0
 permit: 0 permit date: comp. date: 06/01/76
 Lambert X: 3397957 Lambert Y: 3186986 td: 175
 producing formation: td formation:
 latitude: 41.786877 longitude: 88.034799

120432751400 Fykes, Charles 13-38N-10E
 DuPage Reily, Mary 1
 Status: WATER 1600 NL 600 WL Elev: 757GL
 permit: 127038 permit date: 09/23/86 comp. date: 09/24/86
 Lambert X: 3393927 Lambert Y: 3187846 td: 205
 producing formation: td formation:
 latitude: 41.782214 longitude: 88.049361
 Water from limestone at depth 165 to 205 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15 LB	0	90

 Size hole below casing: 5 in.
 Static level 90 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 125 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom

top soil	5	5
clay	15	20
blue clay	28	48
gravel	27	75
blue clay	9	84
broken limestone	5	89
limestone	71	160
no record	5	165
limestone	40	205

120430292900 K & K Well Drilling 13-38N-10E
 DuPage Reuter Wilson
 Status: WATER NW Elev: 0
 permit: 0 permit date: comp. date: 08/01/72
 Lambert X: 3394629 Lambert Y: 3188153 td: 140
 producing formation: td formation:
 latitude: 41.783351 longitude: 88.046472

120430296400 K & K Well Drilling 13-38N-10E
 DuPage Reuter Wilson
 Status: WATER NW Elev: 0
 permit: 0 permit date: comp. date: 09/01/72
 Lambert X: 3394629 Lambert Y: 3188153 td: 140

producing formation: td formation:
latitude: 41.783351 longitude: 88.046472

120432748800 Fykes, Charles 13-38N-10E
DuPage Richiusa, Sal 1
Status: WATER NE NW NW Elev: 0
permit: 126531 permit date: 09/04/86 comp. date: 09/04/86
Lambert X: 3394259 Lambert Y: 3189131 td: 205
producing formation: td formation:
latitude: 41.785740 longitude: 88.048063
Water from limestone at depth 167 to 205 ft.
Screen: Diam. 0 in. Length: 0 ft. Slot: 0
Casing and Liner Pipe -
Diam. (in.) Kind and Weight From(ft) To(ft)
5 A-53 15 LB 0 130

Size hole below casing: 5 in.
Static level 65 ft. below casing top which is 1 ft. above grnd level.
Pumping level 120 ft. when pumping at 10 gpm for 1 hours.
Formations Passed Through Thickness Bottom
top soil 3 3
clay 14 17
blue clay 15 32
gravel 7 39
blue clay 17 56
gravel 36 92
sand 10 102
limestone 58 160
limestone & clay 7 167
limestone 38 205

120430052700 Neely, George 13-38N-10E
DuPage Rietz Cons Co 52
Status: WATER 1560 SL 740 EL Elev: 0
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3397911 Lambert Y: 3185884 td: 170
producing formation: td formation:
latitude: 41.776628 longitude: 88.034857

120430027000 Neely, George 13-38N-10E
DuPage Rietz Cons Co
Status: WATER 475 NL 1250 EL SE Elev: 754GL
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3397380 Lambert Y: 3186483 td: 165
producing formation: td formation:
latitude: 41.785550 longitude: 88.037055

120430052800 Neely, George 13-38N-10E
DuPage Rietz E M 43
Status: WATER 1950 NL 740 EL Elev: 754GL
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3397848 Lambert Y: 3187691 td: 170
producing formation: td formation:
latitude: 41.784832 longitude: 88.038971

120430027700 Perrine William 13-38N-10E
DuPage Rietz Evelyn M
Status: WATER 700 SL 600 EL NE Elev: 750GL
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3397988 Lambert Y: 3187687 td: 165
producing formation: td formation:
latitude: 41.781589 longitude: 88.034518

120432476900 Dupage Pump 13-38N-10E
DuPage Ritlewski Harry

Status: WATER NW Elev: 0
 permit: 0 permit date: comp. date: 09/01/76
 Lambert X: 3394629 Lambert Y: 3188153 td: 160
 producing formation: td formation:
 latitude: 41.783351 longitude: 88.046472

120432719500 Fykes, Charles 13-38N-10E
 DuPage Robison, Dave 1
 Status: WATER 260 NL 1235 WL Elev: 750GL
 permit: 120617 permit date: 09/30/85 comp. date: 10/08/85
 Lambert X: 3394503 Lambert Y: 3189215 td: 185
 producing formation: td formation:
 latitude: 41.785961 longitude: 88.047160
 Water from limestone at depth 112 to 185 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 A-53 15 LB 0 115
 Size hole below casing: 5 in.
 Static level 105 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 130 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 45 45
 gravel 30 75
 clay 15 90
 gravel 22 112
 limestone 73 185

120432529400 Fykes Charles & Pump 13-38N-10E
 DuPage Rome Const 1
 Status: WATER SW SE NE Elev: 0
 permit: 0 permit date: comp. date: 06/01/77
 Lambert X: 3397617 Lambert Y: 3187302 td: 165
 producing formation: td formation:
 latitude: 41.780568 longitude: 88.035829

120432529500 Fykes Charles & Pump 13-38N-10E
 DuPage Salk Jack 1
 Status: WATER SE SE NW Elev: 0
 permit: 0 permit date: comp. date: 04/01/77
 Lambert X: 3395652 Lambert Y: 3187206 td: 185
 producing formation: td formation:
 latitude: 41.780541 longitude: 88.042938

120432529600 Fykes Charles & Pump 13-38N-10E
 DuPage Schaffstall Ed 1
 Status: WATER NW SW SE Elev: 0
 permit: 0 permit date: comp. date: 12/01/77
 Lambert X: 3396383 Lambert Y: 3185248 td: 140
 producing formation: td formation:
 latitude: 41.777691 longitude: 88.040447

120432941200 Knierim, Phil 13-38N-10E
 DuPage Secrist, David
 Status: WATER SW NE NW Elev: 0
 permit: 92-1533 permit date: 07/23/92 comp. date: 01/11/93
 Lambert X: 3394943 Lambert Y: 3188500 td: 180
 producing formation: td formation:
 latitude: 41.783971 longitude: 88.045582
 Water from lime at depth 90 to 180 ft.
 Screen: Diam. in. Length: 0 ft. Slot:
 Casing and Liner Pipe -
 Diam. (in.) Kind and Weight From(ft) To(ft)
 5 PLASTIC PVC 0 121
 Size hole below casing: 5 in.

Static level 90 ft. below casing top which is 1 ft. above grnd level.
Pumping level 140 ft. when pumping at 0 gpm for 0 hours.
Formations Passed Through Thickness Bottom
top soil 2 2
clay 94 96
broken lime 24 120
lime 60 180

120432477000 K & K Well Drilling 13-38N-10E
DuPage Shanske Anna
Status: WATER W2 NE Elev: 0
permit: 0 permit date: comp. date: 11/01/76
Lambert X: 3396597 Lambert Y: 3188249 td: 160
producing formation: td formation:
latitude: 41.783329 longitude: 88.039423

120430233800 Lockport Well & Pump 13-38N-10E
DuPage Shewchuck Wm 1
Status: WATER NW SE SE Elev: 0
permit: 0 permit date: comp. date: 12/01/71
Lambert X: 3397689 Lambert Y: 3185311 td: 175
producing formation: td formation:
latitude: 41.777772 longitude: 88.035720

120432750000 Fykes, Charles 13-38N-10E
DuPage Spinney, Jack 1
Status: WATER 1300 NL 800 WL Elev: 760GL
permit: 126738 permit date: 09/12/86 comp. date: 09/12/86
Lambert X: 3394114 Lambert Y: 3188156 td: 205
producing formation: td formation:
latitude: 41.783060 longitude: 88.048655
Water from limestone at depth 99 to 205 ft.
Screen: Diam. 0 in. Length: 0 ft. Slot: 0
Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15 LB	0	100

Size hole below casing: 5 in.
Static level 80 ft. below casing top which is 1 ft. above grnd level.
Pumping level 130 ft. when pumping at 10 gpm for 1 hours.
Formations Passed Through Thickness Bottom
clay 30 30
clay & sand 22 52
gravel 24 76
sand 9 85
blue clay 9 94
broken limestone 5 99
limestone 106 205

120432800300 Fykes, Charles N. 13-38N-10E
DuPage Spinney, Jack 1
Status: WATER SE NW NW Elev: 0
permit: 136663 permit date: 10/26/87 comp. date: 11/05/87
Lambert X: 3394287 Lambert Y: 3188468 td: 205
producing formation: td formation:
latitude: 41.783912 longitude: 88.047999
Water from limestone at depth 103 to 205 ft.
Screen: Diam. 0 in. Length: 0 ft. Slot: 0
Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15#	0	103

Size hole below casing: 5 in.
Static level 100 ft. below casing top which is 1 ft. above grnd level.
Pumping level 130 ft. when pumping at 12 gpm for 1 hours.
Formations Passed Through Thickness Bottom
top soil 3 3
clay 25 28

blue clay	35	63
sand	8	71
blue clay	25	96
gravel	7	103
limestone	102	205

120430209000 K & K Well Drilling 13-38N-10E
 DuPage Stade
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 07/01/71
 Lambert X: 3397351 Lambert Y: 3185627 td: 140
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120430209100 K & K Well Drilling 13-38N-10E
 DuPage Stade
 Status: WATER SE Elev: 0
 permit: 0 permit date: comp. date: 07/01/71
 Lambert X: 3397351 Lambert Y: 3185627 td: 140
 producing formation: td formation:
 latitude: 41.779573 longitude: 88.036941

120432529700 Fykes Charles & Pump 13-38N-10E
 DuPage Stade H A 1
 Status: WATER NE NE SE Elev: 0
 permit: 0 permit date: comp. date: 08/01/77
 Lambert X: 3398296 Lambert Y: 3186670 td: 145
 producing formation: td formation:
 latitude: 41.785068 longitude: 88.033593

120432629300 Fykes, Charles N. 13-38N-10E
 DuPage Stade, H.A. Company 1
 Status: WATER SW NW SE Elev: 0
 permit: 58567 permit date: 04/04/77 comp. date: 09/10/77
 Lambert X: 3396358 Lambert Y: 3185911 td: 165
 producing formation: td formation:
 latitude: 41.776774 longitude: 88.040525
 Water from limestone at depth 130 to 165 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15#	0	130

 Size hole below casing: 5 in.
 Static level 110 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 125 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom

clay	80	80
gravel	25	105
clay	15	120
gravel	10	130
limestone	35	165

120430099000 K & K Well Drilling 13-38N-10E
 DuPage Steinbasser Johann
 Status: WATER NE NW SW Elev: 0
 permit: 0 permit date: comp. date: 08/01/67
 Lambert X: 3394369 Lambert Y: 3186480 td: 175
 producing formation: td formation:
 latitude: 41.784948 longitude: 88.047458

120430316900 K & K Well Drilling 13-38N-10E
 DuPage Steinbauer John
 Status: WATER NE Elev: 0
 permit: 0 permit date: comp. date: 04/01/73

Lambert X: 3397253	Lambert Y: 3188281	td: 150
producing formation:	td formation:	
latitude: 41.783323	longitude: 88.037074	
120432529800	K & K Well Drilling	13-38N-10E
DuPage	Straub Christopher	
Status: WATER	E2 SE	Elev: 0
permit: 0	permit date:	comp. date: 08/01/78
Lambert X: 3398004	Lambert Y: 3185658	td: 140
producing formation:	td formation:	
latitude: 41.779610	longitude: 88.034590	
120430227700	K & K Well Drilling	13-38N-10E
DuPage	Strauser Thomas	
Status: WATER	NW	Elev: 0
permit: 0	permit date:	comp. date: 10/01/71
Lambert X: 3394629	Lambert Y: 3188153	td: 150
producing formation:	td formation:	
latitude: 41.783351	longitude: 88.046472	
120432477100	K & K Well Drilling	13-38N-10E
DuPage	Sula Al	
Status: WATER	NW	Elev: 0
permit: 0	permit date:	comp. date: 11/01/76
Lambert X: 3394629	Lambert Y: 3188153	td: 140
producing formation:	td formation:	
latitude: 41.783351	longitude: 88.046472	
120430339800	Foyle Richard	13-38N-10E
DuPage	Sula T	
Status: WATER	NW	Elev: 0
permit: 0	permit date:	comp. date: 09/01/73
Lambert X: 3394629	Lambert Y: 3188153	td: 180
producing formation:	td formation:	
latitude: 41.783351	longitude: 88.046472	
120432529900	K & K Well Drilling	13-38N-10E
DuPage	Tharp Robert	
Status: WATER	SE	Elev: 0
permit: 0	permit date:	comp. date: 10/01/78
Lambert X: 3397351	Lambert Y: 3185627	td: 180
producing formation:	td formation:	
latitude: 41.779573	longitude: 88.036941	
120432416100	Foyle Richard	13-38N-10E
DuPage	Thatcher Lee	
Status: WATER	E2 NW	Elev: 0
permit: 0	permit date:	comp. date: 01/01/75
Lambert X: 3395285	Lambert Y: 3188185	td: 170
producing formation:	td formation:	
latitude: 41.783345	longitude: 88.044122	
120430023100	Neely, George	13-38N-10E
DuPage	Thompson Leon	11
Status: WATER	1150 SL 1150 WL	Elev: 0
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3394586	Lambert Y: 3185316	td: 160
producing formation:	td formation:	
latitude: 41.775215	longitude: 88.046889	
120432493600	K & K Well Drilling	13-38N-10E
DuPage	Toft Alex	

Status: WATER W2 NW Elev: 0
 permit: 0 permit date: comp. date: 12/01/76
 Lambert X: 3393973 Lambert Y: 3188121 td: 160
 producing formation: td formation:
 latitude: 41.783357 longitude: 88.048821

120430339900 K & K Well Drilling 13-38N-10E
 DuPage Tri County Realty
 Status: WATER NE Elev: 0
 permit: 0 permit date: comp. date: 10/01/73
 Lambert X: 3397253 Lambert Y: 3188281 td: 160
 producing formation: td formation:
 latitude: 41.783323 longitude: 88.037074

120432629400 Fykes, Charles N. 13-38N-10E
 DuPage Trowbridge, John 1
 Status: WATER NW SE NW Elev: 0
 permit: 109248 permit date: 09/08/83 comp. date: 09/15/83
 Lambert X: 3394970 Lambert Y: 3187837 td: 205
 producing formation: td formation:
 latitude: 41.782143 longitude: 88.045522
 Water from limestone at depth 125 to 205 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15#	0	125

 Size hole below casing: 5 in.
 Static level 80 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 100 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom

top soil	2	2
clay	108	110
gravel	15	125
limestone	80	205

120430027200 Harper, Jack 13-38N-10E
 DuPage Vance Cons Co 1
 Status: WATER 1250 NL 600 EL SE Elev: 755GL
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3398056 Lambert Y: 3185741 td: 160
 producing formation: td formation:
 latitude: 41.783431 longitude: 88.034585

120430068400 Randa Wm J 13-38N-10E
 DuPage Venard Richard 87
 Status: WATER 1425 NL 1300 EL Elev: 0
 permit: 0 permit date: comp. date: 01/01/59
 Lambert X: 3397271 Lambert Y: 3188187 td: 172
 producing formation: td formation:
 latitude: 41.783360 longitude: 88.036940

120430068300 Neely, George 13-38N-10E
 DuPage Vojacek Valerian 5
 Status: WATER 800 NL 900 EL Elev: 0
 permit: 0 permit date: comp. date: 01/01/60
 Lambert X: 3397649 Lambert Y: 3188831 td: 180
 producing formation: td formation:
 latitude: 41.781655 longitude: 88.038450

120432530000 K & K Well Drilling 13-38N-10E
 DuPage Vosoc Zoran
 Status: WATER SW SE SE Elev: 0
 permit: 0 permit date: comp. date: 11/01/78
 Lambert X: 3397713 Lambert Y: 3184647 td: 160

producing formation: td formation:
latitude: 41.774134 longitude: 88.035629

120430067900 Neely, George 13-38N-10E
DuPage Walz Wm 10
Status: WATER 1800 SL 1250 EL Elev: 0
permit: 0 permit date: comp. date: 01/01/60
Lambert X: 3397393 Lambert Y: 3186099 td: 170
producing formation: td formation:
latitude: 41.777246 longitude: 88.036755

120430020100 Neely, George 13-38N-10E
DuPage Walz Wm
Status: WATER 1050 SL 600 EL NE Elev: 752GL
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3397976 Lambert Y: 3188037 td: 163
producing formation: td formation:
latitude: 41.782551 longitude: 88.034553

120432635800 Fykes, Charles N. 13-38N-10E
DuPage Warthen Pump Sales 1
Status: WATER NE NW NE Elev: 0
permit: 115018 permit date: 09/26/84 comp. date: 09/28/84
Lambert X: 3396888 Lambert Y: 3189260 td: 185
producing formation: td formation:
latitude: 41.785980 longitude: 88.038376
Water from limestone at depth 105 to 185 ft.
Screen: Diam. 0 in. Length: 0 ft. Slot: 0
Casing and Liner Pipe -
Diam. (in.) Kind and Weight From(ft) To(ft)
5 A-53 15# 0 112
Size hole below casing: 5 in.
Static level 110 ft. below casing top which is 1 ft. above grnd level.
Pumping level 130 ft. when pumping at 10 gpm for 1 hours.
Formations Passed Through Thickness Bottom
clay 17 17
gravel 88 105
limestone 80 185

120430040000 Shoemaker, Leonard 13-38N-10E
DuPage Weiss Herman
Status: WATER 175 SL 600 WL Elev: 725GL
permit: 0 permit date: comp. date: 01/01/59
Lambert X: 3394079 Lambert Y: 3184317 td: 165
producing formation: td formation:
latitude: 41.772481 longitude: 88.048976

120430323500 K & K Well Drilling 13-38N-10E
DuPage Wilson A
Status: WATER SW Elev: 0
permit: 0 permit date: comp. date: 05/01/73
Lambert X: 3394737 Lambert Y: 3185501 td: 140
producing formation: td formation:
latitude: 41.779429 longitude: 88.046342

120430142400 K & K Well Drilling 13-38N-10E
DuPage Wilson A M
Status: WATER SW Elev: 0
permit: 0 permit date: comp. date: 11/01/70
Lambert X: 3394737 Lambert Y: 3185501 td: 155
producing formation: td formation:
latitude: 41.779429 longitude: 88.046342

120430286800 K & K Well Drilling 13-38N-10E
 DuPage Wilson A M
 Status: WATER NW Elev: 0
 permit: 0 permit date: comp. date: 06/01/72
 Lambert X: 3394629 Lambert Y: 3188153 td: 140
 producing formation: td formation:
 latitude: 41.783351 longitude: 88.046472

120432357400 K & K Well Drilling 13-38N-10E
 DuPage Wilson A M
 Status: WATER NW Elev: 0
 permit: 0 permit date: comp. date: 11/01/73
 Lambert X: 3394629 Lambert Y: 3188153 td: 150
 producing formation: td formation:
 latitude: 41.783351 longitude: 88.046472

120430068200 Neely, George 13-38N-10E
 DuPage Woodland Bldrs 3
 Status: WATER 2200 NL 600 EL Elev: 0
 permit: 0 permit date: comp. date: 01/01/60
 Lambert X: 3397997 Lambert Y: 3187448 td: 170
 producing formation: td formation:
 latitude: 41.785527 longitude: 88.039472

120432391200 K & K Well Drilling 13-38N-10E
 DuPage Wrenski Don
 Status: WATER NE Elev: 0
 permit: 0 permit date: comp. date: 12/01/74
 Lambert X: 3397253 Lambert Y: 3188281 td: 180
 producing formation: td formation:
 latitude: 41.783323 longitude: 88.037074

120432710900 Fykes, Charles 13-38N-10E
 DuPage Zeinm, Steve 1
 Status: WATER 1020 NL 920 WL Elev: 764GL
 permit: 119316 permit date: 07/30/85 comp. date: 08/27/85
 Lambert X: 3394221 Lambert Y: 3188441 td: 205
 producing formation: td formation:
 latitude: 41.783840 longitude: 88.048244
 Water from limestone at depth 120 to 205 ft.
 Screen: Diam. 0 in. Length: 0 ft. Slot: 0
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
5	A-53 15 LB	0	120

 Size hole below casing: 5 in.
 Static level 80 ft. below casing top which is 1 ft. above grnd level.
 Pumping level 140 ft. when pumping at 10 gpm for 1 hours.
 Formations Passed Through Thickness Bottom
 clay 50 50
 gravel 70 120
 limestone 85 205

120430198000 Austin, Harry 13-38N-10E
 DuPage Zimmertin E
 Status: WATER Elev: 0
 permit: 0 permit date: comp. date: 01/01/45
 Lambert X: 3395993 Lambert Y: 3186891 td: 168
 producing formation: td formation:
 latitude: 41.779491 longitude: 88.041811

120430029200 Neely & Son 18-38N-11E
 DuPage Hoffman
 Status: WATER 300 NL 75 WL SW Elev: 770GL
 permit: 0 permit date: comp. date: 01/01/59

Lambert X: 3398698	Lambert Y: 3186704	td: 195
producing formation:	td formation:	
latitude: 41.778855	longitude: 88.031863	
120430029300	Neely & Son	18-38N-11E
DuPage	Hoffman	
Status: WATER	250 NL 75 WL SW	Elev: 770GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3398696	Lambert Y: 3186754	td: 195
producing formation:	td formation:	
latitude: 41.778993	longitude: 88.031868	
120430068600	Neely & Son	18-38N-11E
DuPage	Hoffman Bldrs	19
Status: WATER	2250 NL 75 WL	Elev: 0
permit: 0	permit date:	comp. date: 01/01/60
Lambert X: 3398674	Lambert Y: 3187393	td: 175
producing formation:	td formation:	
latitude: 41.780755	longitude: 88.031911	
120430029600	AI-Well Drilling	18-38N-11E
DuPage	Morris Robert	
Status: WATER	500 NL 60 WL SW	Elev: 780GL
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3398690	Lambert Y: 3186504	td: 180
producing formation:	td formation:	
latitude: 41.778304	longitude: 88.031905	
120430083000	Neely, George	18-38N-11E
DuPage	R K Bldrs	
Status: WATER	N E SWc SW NW SW	Elev: 0
permit: 0	permit date:	comp. date: 07/01/67
Lambert X: 3398658	Lambert Y: 3185680	td: 160
producing formation:	td formation:	
latitude: 41.776035	longitude: 88.032071	
120430055100	Beyreis, Kenneth	18-38N-11E
DuPage	Schuimacher M F	5
Status: WATER	300 SL 100 WL	Elev: 0
permit: 0	permit date:	comp. date: 01/01/59
Lambert X: 3398793	Lambert Y: 3184666	td: 123
producing formation:	td formation:	
latitude: 41.773234	longitude: 88.031635	
120430068800	Perrine William	18-38N-11E
DuPage	W & H Homes Inc	
Status: WATER	1675 NL 75 WL	Elev: 0
permit: 0	permit date:	comp. date: 01/01/60
Lambert X: 3398654	Lambert Y: 3187967	td: 170
producing formation:	td formation:	
latitude: 41.782338	longitude: 88.031950	
120430069000	Perrine William	18-38N-11E
DuPage	Wick Edw	
Status: WATER	2200 NL 100 WL	Elev: 0
permit: 0	permit date:	comp. date: 01/01/60
Lambert X: 3398697	Lambert Y: 3187444	td: 170
producing formation:	td formation:	
latitude: 41.780895	longitude: 88.031823	

APPENDIX G

Local Groundwater Ordinance

Article V. Cross Connections/Backflow Prevention Requirements.

(Ord. No. 3805, Amended, 12/04/95; Ord. No. 3805, Amended, 12/04/95)

25-51. Cross-connection prohibited; backflow prevention device required.

No person shall establish or permit to be established or maintain or permit to be maintained any connection of a nonpublic water supply to the public water supply of the Village, excluding any water system interconnections the Village may establish. Backflow prevention devices shall be installed where required under this Article and in accordance with Illinois Environmental Protection Agency Regulations, specifically Ill. Admin. Code, Title 35, Section 653.803.(Ord. No. 2942, § 1; Ord. No. 3301, § 2.)(Ord. No. 3473, Amended, 06/15/92; Ord. No. 3555, Amended, 04/19/93; Ord. No. 3581, Amended, 08/02/93; Ord. No. 3805, Amended, 12/04/95)

* 25-52. Private water wells; permit required.

(a) It shall be unlawful for any person to dig, drill, redrill or extend, or cause to be dug, drilled, redrilled, or extended, any well, hole or other excavation in the ground for the purpose of extracting water therefrom, at any location within the corporate limits of the Village, except:

(1) Any well authorized and intended to be owned and operated by the Village as part of the Village's water system;

(2) Any well situated on a zoning lot (as such term is defined and used in the Comprehensive Zoning Ordinance of the village) on which a building has been or may be lawfully constructed and occupied; provided, that no portion of such zoning lot is located within two hundred and fifty feet (as measured by the most direct route along public right of way or existing utility easements) of a water main owned by the Village that is available to provide water service to such zoning lot;

(3) Any well situated outside a zoning

lot; provided, that such well is not located within two hundred fifty feet (measured as provided in paragraph (2) of this section) of a water main owned by the village that is available to provide water service;

(4) Any well intended and used exclusively for irrigation and watering of crops or landscaping or in cooling towers used in conjunction with air conditioning systems; provided, that the well shall meet the following conditions:

(i) Such well shall not be drilled to a depth greater than two hundred feet; and

(ii) Such well shall not be connected in any way to any water system providing water for domestic use or human consumption, including but not limited to, the Village's water system. In order to assure that water from such well is not so connected, the Village may require that a periodic bacteriological sampling may be taken of the domestic water entering any building on the property served by such well. The charge for such sampling shall be automatically added to the water bill for Village water for such building, and shall constitute an expense to the owner thereof; and

(iii) Any such well with a column pipe up to four inches in size shall not be dug or drilled within fifty feet from any Village-owned well. Any such well with a column pipe greater than five inches in size shall not be dug or drilled within one thousand feet from any Village-owned well; and

(iv) Such well shall be no less than fifteen feet from any publicly or privately owned water main, and

(v) A backflow prevention device shall be installed on the water service pipe(s)/line(s) connecting any structure on the property to the public water supply.

(vi) Such wells shall not be subject to the water conservation regulations in Section 25-5 if the owner or occupant of the property on which the well is located obtains and displays a "private well" sign. A metal sign shall be placed

in the front yard or a paper sign in the window of the property in a location clearly visible from the street. Such signs shall be obtained from the Village: metal property signs for a cost of twenty dollars; paper window signs at no charge. Except as otherwise provided in the preceding sentences, such wells shall be subject to the water conservation regulations in Section 25-5.

(vii) If well water is used in cooling towers in conjunction with air conditioning systems, all such water shall dispense through evaporation or other appropriate means and shall not be discharged into the sanitary or storm sewer systems, or otherwise discharged into the ground.

(b) It shall be unlawful for any person to dig, drill, redrill or extend, or cause to be dug, drilled, redrilled, or extended, any well, hole or other excavation in the ground for the purpose of extracting water therefrom, without (1) having first applied for and obtained a permit for such well from the Village, which permit shall not be issued unless the applicant provides satisfactory evidence to the effect that such well is permitted under the provisions of subsection (a) above; (2) establishing that permits therefor have also been issued by DuPage County, the Illinois Department of Mines and Minerals and any other governmental authority having jurisdiction thereof; and (3) certifying that such well will be in full compliance with all applicable health and safety requirements of DuPage County. Fees for the permit required in paragraph (a) hereof shall be as follows:

<u>Work Performed</u>	<u>Fee</u>	<u>Bond</u>
Plan review and on site inspection	\$ 100.00	N/A
Electrical inspection	6.00	N/A
Parkway opening	20.00	\$200.00

(Ord. No. 2942, § 1; Ord. No. 3301, § 3.) (Ord. No. 3805, Amended, 12/04/95)

25-53. Backflow preventers required for certain facilities.

(a) If the director of public works or his designee determines that an industrial or commercial facility is an actual or potential hazard to the public water supply system, the owner or occupant of the property shall install a backflow prevention device on the water service pipes/lines which connect the industrial or commercial facility to the public water supply system. The following types of facilities are presumed to pose an actual or potential hazard unless the director of public works or his designee, upon certification from a cross-connection control device inspector (CCCDI), determines that the building does not pose an actual or potential hazard to the public water supply: (1) hospitals, mortuaries, clinics, nursing homes; (2) laboratories; (3) sewage treatment plants, sewage pumping stations or stormwater pumping stations; (4) food or beverage processing plants; (5) chemical plants; (6) metal plating industries; (7) petroleum processing or storage plants; (8) radioactive material processing plants or nuclear reactors; (9) car washes; (10) pesticide, or herbicide or extermination plants and trucks; (11) farm service and fertilizer plants and trucks. The aforementioned listing is not exhaustive and the director of public works or his designee may determine that other facilities not listed above pose an actual or potential hazard to the public water supply system.

(b) Any property owner or occupant notified in writing of a determination that the facility poses an actual or potential hazard to the public water supply system shall within ninety days of receipt of the notice install the required backflow prevention device at his or her expense and provide the director of public works or his designee with a certificate of inspection from an approved cross-connection control device inspector (CCCDI). (Ord. No. 3301, § 4.) (Ord. No. 3805, Renumbered, 12/04/95, 25-52.1)

APPENDIX H

R-14 / R-26 Modeling Calculations

Tier 2 SRO Calculations

Equation R-14 Solved for C_{water}

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Contaminant of Concern	PCE	TCE	DCE	VC	MC
Concentration Detected in Soil (C _{soil}) - mg/Kg:	110	8	3.3	0.046	0.04
Width of Source Area Parallel to Direction of Groundwater Movement (W) - cm:	1,828	1,828	1,828	1,828	1,828
Henry's Law Constant App. C, Table E (H') - cm ³ _{water} /cm ³ _{air} :	0.754	0.422	0.167	1.11	0.0898
Hydraulic Conductivity (K) - cm/year:	315.4	315.4	315.4	315.4	315.4
Hydraulic Gradient (i) - cm/cm:	0.01	0.01	0.01	0.01	0.01
Volumetric Water Content in Vadose Zone Soils App. C, Table D (θ _{wt}) - cm ³ _{water} /cm ³ _{soil} :	0.3	0.3	0.3	0.3	0.3
Volumetric Air Content in Vadose Zone Soils App. C, Table D (θ _{sa}) - cm ³ _{air} /cm ³ _{soil} :	0.13	0.13	0.13	0.13	0.13
Soil Bulk Density App. C, Table D (ρ _b) - g/cm ³ :	1.5	1.5	1.5	1.5	1.5
Organic Carbon Partition Coefficient App. C, Table E or I (K _{oc}) - cm ³ /g:	155	166	35.5	18.6	11.7
Organic Carbon Content of Soil Site-Specific or App. C, Table D (f _{oc}) - g/g:	0.0108	0.0108	0.0108	0.0108	0.0108
Infiltration Rate App. C, Table D (I) - cm/year:	30	30	30	30	30
Groundwater Mixing Zone Thickness App. C, Table D (δ _{gw}) - cm:	200	200	200	200	200
Soil Water Sorption Coefficient (k _s) - cm ³ _{water} /g _{soil} R-20 k _s =K _{oc} *f _{oc} :	1.67	1.79	0.38	0.20	0.13
Groundwater Darcy Velocity (U _{gw}) - cm/year R-24 U _{gw} =K*i:	3.15	3.15	3.15	3.15	3.15
R-14 Predicted Concentration in Groundwater C _{water} - mg/L:	56.075	3.897	5.457	0.091	0.118

Equation R-14 Solved for C_{water}

Intermediate Solutions:

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Contaminant of Concern	PCE	TCE	DCE	VC	MC
$a = \Theta_{ws} + (k_s \cdot \rho_s) + (H' \cdot \Theta_{as}) =$	2.90902	3.04406	0.89681	0.74562	0.501214
$b = (U_{gw} \cdot \delta_{gw}) / (I \cdot W) =$	0.012	0.012	0.012	0.012	0.012
$c = a \cdot (1+b) =$	2.942	3.079	0.907	0.754	0.507
$C_{water} = (\rho_s / c) \cdot C_{soil} =$	56.075	3.897	5.457	0.091	0.118

Equation R-26 Solved for C(x)

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Contaminant of Concern	PCE	TCE	DCE	VC	MC
Conc. at the Source -- $C_{(source)}$ - $\mu\text{g/L}$:	56,075	3,897	5,457	91	118
Dist. along centerline of gw plume in direction of gw flow (X) - cm:	610	610	610	610	610
Source width perpendicular to gw flow direction in horiz. plane (S_w) - cm:	2,438	2,438	2,438	2,438	2,438
Source width perpendicular to gw flow direction in vert. plane (S_d) - cm:	30.48	30.48	30.48	30.48	30.48
First Order Degradation Constant App. C, Table E (λ) - day^{-1} :	0.00096	0.00042	0.00024	0.00024	0.012
Hydraulic Conductivity (K) - cm/day:	0.86	0.86	0.86	0.86	0.86
Hydraulic gradient (i) - cm/cm:	0.01	0.01	0.01	0.01	0.01
Total Soil Porosity App. C, Table D (Θ_T) - $\text{cm}^3/\text{cm}^3_{\text{soil}}$:	0.43	0.43	0.43	0.43	0.43
Longitudinal Dispersivity (α_L) - cm R-16 $\alpha_L = 0.10 * X$:	61.00	61.00	61.00	61.00	61.00
Transverse Dispersivity (α_T) - cm R-17 $\alpha_T = \alpha_L / 3$:	20.33	20.33	20.33	20.33	20.33
Vertical Dispersivity (α_d) - cm R-18 $\alpha_d = \alpha_T / 20$:	3.05	3.05	3.05	3.05	3.05
Error Functions: $B_1 = S_w / (4 * \text{SQRT}(\alpha_L * X))$	5.47	5.47	5.47	5.47	5.47
From App. C, Table G enter corresp. error function value -- $\text{erf}(B_1)$:	1	1	1	1	1
$B_2 = S_d / (2 * \text{SQRT}(\alpha_T * X))$	0.35	0.35	0.35	0.35	0.35
From App. C, Table G enter corresp. error function value -- $\text{erf}(B_2)$:	0.38269404	0.38269404	0.38269404	0.38269404	0.38269404
Specific Discharge (U) - cm/day R-19 $U = K * i / \Theta_T$:	0.020	0.020	0.020	0.020	0.020
R-26 Concentration at distance(X) from the source -- $C_{(x)}$ - $\mu\text{g/L}$:	0.058	0.936	15.403	0.257	0.000

Equation R-26 Solved for C(x)

Intermediate Solutions:

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Contaminant of Concern	PCE	TCE	DCE	VC	MC
$a = X/2 \cdot \alpha_x =$	5	5	5	5	5
$b = \text{SQRT}(1 + (4 \cdot \lambda \cdot \alpha_x / U)) =$	3.565	2.475	1.982	1.982	12.141
$c = (1 - b) \cdot a =$	-12.827	-7.373	-4.910	-4.910	-55.704
$d = \text{EXP}(c) =$	0.000	0.001	0.007	0.007	0.000
$C_{(x)} = d \cdot \text{erf}(B2) \cdot \text{erf}(B1) \cdot C_{(\text{source})} =$	0.06	0.94	15.40	0.26	0.00

Datasheet: SSL Soil Remediation Objectives (mg/kg) - Industrial/Commercial

CAS No.	Chemical	Ingestion	Inhalation	Construction Worker Ingestion	Construction Worker Inhalation	Migration to Class I Groundwater	Migration to Class II Groundwater
127-18-4	Tetrachloroethylene	110.0615	144.7279	2388.488	382.9493	.28	1.4
79-01-6	Trichloroethylene	520.2909	49.37775	1224.271	1028.703	.28	1.4
156-59-2	cis-1,2-Dichloroethylene	20440	1801.007	20404.51	1801.007	3.92	11.2
75-01-4	Vinyl Chloride	3.012211	.9993116	65.36916	20.81899	.112	.5599999
75-09-2	Methylene Chloride	763.0933	178.6004	12242.71	3160.595	.28	2.3

Datasheet: SSL Soil Saturation Limits (Csat) for Chemicals with Melting Point < 30 deg C

Chemical	Csat (surface) (mg/kg)	Csat (subsurface) (mg/kg)
Tetrachloroethylene	382.9493	387.8694
Trichloroethylene	2168.731	2232.311
cis-1,2-Dichloroethylene	1801.007	2092.557
Vinyl Chloride	1402.301	1371.941
Methylene Chloride	3160.595	4343.855

Datasheet: SSL Parameters

Parameter	Units	Value Used
AT for Ingestion of Noncarcinogens	yr	Residential = 6 Industrial/Commercial = 25 Construction Worker = .115
AT for Inhalation of Noncarcinogens	yr	Residential = 30 Industrial/Commercial = 25 Construction Worker = .115
ATc for Carcinogens	yr	70
BW	kg	Residential = 15, noncarcinogens Residential = 70, carcinogens Industrial/Commercial = 70 Construction Worker = 70
ED for Ingestion of Carcinogens	yr	Industrial/Commercial = 25 Construction Worker = 1
ED for Inhalation of Carcinogens	yr	Residential = 30 Industrial/Commercial = 25 Construction Worker = 1
ED for Ingestion of Noncarcinogens	yr	Residential = 6 Industrial/Commercial = 25 Construction Worker = 1
ED for Inhalation of Noncarcinogens	yr	Residential = 30 Industrial/Commercial = 25 Construction Worker = 1
ED for Groundwater Ingestion	yr	Residential = 30 Industrial/Commercial = 25 Construction Worker = 1
ED for Mass-Limit Eqn.	yr	70
EF	d/yr	Residential = 350 Industrial/Commercial = 250 Construction Worker = 30
F(x)	unitless	.194
I (Infiltration Rate)	m/yr	.3
I (Infiltration Rate for Mass-Limit Eqn.)	m/yr	.18
IFsoil-adj (Residential)	(mg-yr)/(kg-d)	114
IRsoil	mg/d	Residential = 200 Industrial/Commercial = 50 Construction Worker = 480
PEF (Residential)	m3/kg	1320000000
PEF (Industrial/Commercial)	m3/kg	1240000000
PEF (Construction Worker)	m3/kg	124000000
Q/C for PEF	(g/m2-s)/(kg/m3)	Residential = 90.8 Industrial/Commercial = 85.81 Construction Worker = 85.81
Q/C for VF	(g/m2-s)/(kg/m3)	Residential = 68.81 Industrial/Commercial = 85.81 Construction Worker = 85.81
Q/C for VF (site specific)	(g/m2-s)/(kg/m3)	97.78
T (Exposure Interval)	s	Residential = 950000000 Industrial/Commercial = 790000000 Construction Worker = 3600000
T (Exposure Interval for Mass-Limit Eqn.)	yr	30
THQ (Target Hazard Quotient)	unitless	1
TR (Target Cancer Risk)	unitless	.000001
Um	m/s	4.69
Ut	m/s	11.32
V	unitless	.5

Datasheet: SSL Calculated Values

Chemical	Kd (surface) (cm ³ /g)	Kd (subsurface) (cm ³ /g)	D _a (cm ² /s)	VF (m ³ /kg)	VF (m ³ /kg)	C _w (residential) (mg/L)	C _w (industrial) (mg/L)
Tetrachloroethylene	1.674	1.674	1.474378E-03	20533.8	2053.38	9.999999E-02	.5
Trichloroethylene	1.7928	1.7928	8.793251E-04	20533.8	2053.38	9.999999E-02	.5
cis-1,2-Dichloroethylene	.3834	.3834	---	---	---	1.4	4
Vinyl Chloride	.20088	.20088	1.204219E-02	20533.8	2053.38	.04	.2
Methylene Chloride	.12636	.12636	1.940218E-03	20533.8	2053.38	9.999999E-02	1

Datasheet: Chemical Properties for the SSL Equations

Chemical	Solubility in Water (mg/L)	Diffusivity in Air (cm ² /s)	Diffusivity in Water (cm ² /s)	Herry's Law Constant (unitless)	Organic Carbon Partition Coefficient (cm ³ /g)
Tetrachloroethylene	200	.072	.0000082	.754	155
Trichloroethylene	1100	.079	.0000091	.422	166
cis-1,2-Dichloroethylene	3500	.0736	.0000113	.167	35.5
Vinyl Chloride	2760	.106	1.23E-06	1.11	18.6
Methylene Chloride	13000	.101	.0000117	.0898	11.7

Datasheet: Physical Soil Parameters for the SSL Equations

Parameter	Units	Value Used
Soil Bulk Density	kg/L	1.5
Organic Carbon Content (Surface Soil)	g/g (unitless)	.0108
Organic Carbon Content (Subsurface Soil)	g/g (unitless)	.0108
Total Soil Porosity	L/L (unitless)	.43
Air-Filled Soil Porosity (Surface Soil)	L/L (unitless)	.28
Air-Filled Soil Porosity (Subsurface Soil)	L/L (unitless)	.13
Water-Filled Soil Porosity (Surface Soil)	L/L (unitless)	.15
Water-Filled Soil Porosity (Subsurface Soil)	L/L (unitless)	.3
Mixing Zone Depth	m	—
Aquifer Thickness	m	—
Dilution Factor	unitless	20
Hydraulic Gradient	m/m	—
Hydraulic Conductivity	m/yr	—
Source Length Parallel to GW flow	m	—
Depth of Contaminant Source	m	3
Area of Contaminant Source	acres	.087
pH	unitless	7.2

Datasheet: Toxicological Properties for the SSL Equations

Chemical	RFDo (mg/kg-d)	RFc (mg/m3)	RFDs (mg/kg-d)	RFcs (mg/m3)	SFo [1/(mg/kg-d)]	URF [1/(ug/m3)]
Tetrachloroethylene	---	---	---	---	---	---
Trichloroethylene	.006	---	.006	---	.011	.0000017
cis-1,2-Dichloroethylene	.01	---	.1	---	---	---
Vinyl Chloride	---	---	---	---	1.9	.000084
Methylene Chloride	.06	3	.06	3	.0075	4.7E-07

EQUATIONS USED FOR TIER 2 SROs

Table C, Appendix C 35 IAC 742

Ingestion: S-1; S-3

Inhalation: S-4; S-5; S-6; S-7; S-26; S-27